















WOMEN AND CHILDREN OF FORIO GRANDE.

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# AFRICA

## AND ITS INHABITANTS

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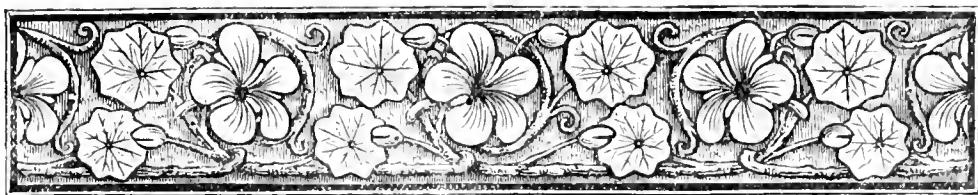
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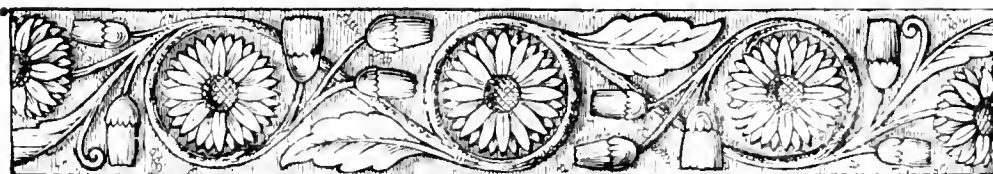
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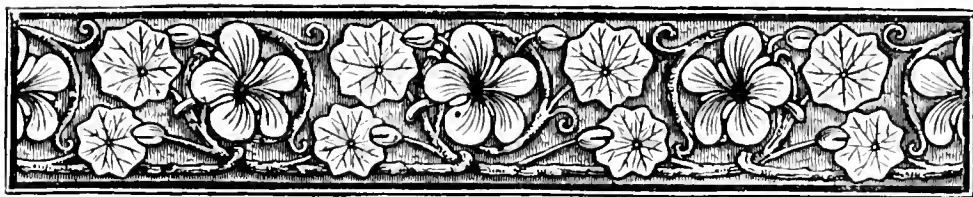
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# AFRICA AND ITS INHABITANTS.

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## WEST AFRICA.

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### CHAPTER I.

#### THE CENTRAL AND SOUTH ATLANTIC.

##### THE FABLED ATLANTIS.



THE term "Atlantis" should properly be restricted to the Atlas region—that is, to Barbary, and more especially to Marocco, which is dominated by the Atlas Range, the Idraren Daren, or "Mountain of Mountains." But by long-established usage this name has been applied to lands which have no existence, and which have probably been submerged for long geological periods. A mythical tradition, referred by Plato to Solon, who was said to have received it from the Egyptian priests of Sais, has been the main source of the endless conjectures advanced by the learned regarding the identification and locality of some great islands and of a continent supposed to lie beyond the Columns of Hercules. Yet the Greek philosopher's relation contains not a single detail in accordance either with known history or with the vague memories of the oldest peoples of antiquity. When speaking of the Athenians as a civilised nation contending some "nine thousand years" previously with Atlas, son of Neptune, for the supremacy over the Mediterranean world, Plato enters the domain of pure fiction. This Atlantis, which he describes as "larger than Libya and Asia," was for him doubtless an ideal land, a region belonging to the golden age. Its inhabitants were assumed to have long flourished, according to his political ideas, under the sway of ten kings, absolute in their respective territories, but deliberating together for the common weal; and it was the neglect of this model constitution that was supposed to have provoked the angry intervention of the gods, followed by the submergence of this fabled Atlantis.

Nevertheless, Plato may well have heard of some shadowy tradition on the

existence of a land to the west of the Mediterranean, the site of which it is now difficult to determine. Assuming that it still exists, this Atlantis might possibly be the New World, which, after having been discovered by the Phœnician seafarers, was again forgotten, to be rediscovered two thousand years afterwards by the Norman and Genoese navigators. Or is it to be identified with the seaboard of tropical Africa, coasted far beyond the Mediterranean skies by some daring adventurers in remote times? Or else was this Atlantic region nothing more than an insular group, or perhaps a solitary island, enlarged by human fancy to the proportions of a continent? Some writers, such as the Swede, Rudbeck, have even identified it with the polar lands, or with Scandinavia, although, according to the more general hypothesis, it was simply another name for the "Hesperides," the "Fortunate Islands," or "Isles of the Blest," expressions current in ancient legend and tradition.

Others again accept Plato's statement in all its essential features, believing that a distinct continental mass, filling a great part of the oceanic basin west of the Atlas, was really engulfed during the present geological epoch, at a time when some civilised peoples were struggling for the dominion of the Mediterranean lands. Such a conjecture, however, which became a sort of literary commonplace in classic poetry, rests on no solid foundation of fact. A convulsion, which "in a single night" shifted the equilibrium of land and water, changing a continent to an oceanic basin, could not have occurred without causing a tremendous reaction, especially if, as Krummel's investigations seem to show, the weight of the continents, from their submerged roots to their summits, is precisely the same as that of the oceans and inland seas.

#### CHANGES IN THE RELIEF OF THE ATLANTIC.

But if there has been no Atlantis, as a distinct region, in the present geological epoch, there can be no doubt that in previous ages, over "nine thousand years" before Plato, there existed a continent in this section of the terrestrial surface. Doubtless, no means are yet available for directly studying the rocks of the oceanic bed, whence the soundings have brought up only some specimens detached from the deposits of chalky mud. But the disposition of the opposite shores of the Atlantic, and the fossils embedded in their strata, offer a ready solution of many geological problems. Where the corresponding formations on either side of the Atlantic, although belonging to the same geological age, present considerable differences in their respective faunas, it is inferred that the marine laboratories where they were deposited must have been separated by upheaved lands. On the other hand, a close resemblance and even identity of organic forms in the two now distant regions shows that the corresponding strata were at one time connected by dry land of some sort.

Thanks to these comparative studies, it may be asserted that when the Jurassic sedimentary rocks were constituted, the waters of the Old and New World were not

continuously connected as they now are by the deep depression of the Atlantic. A

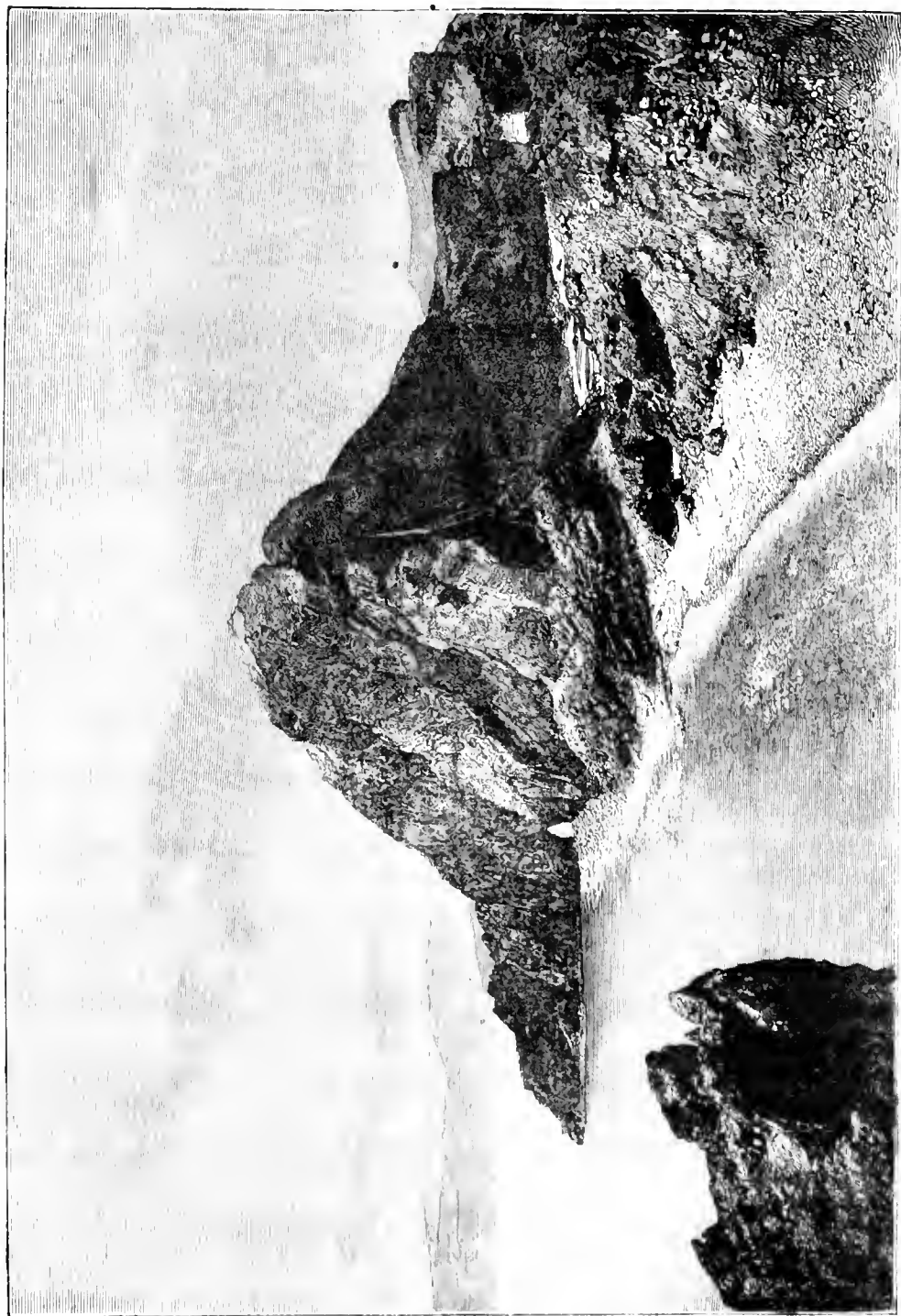


Fig. 1.—CAPE SAG-LOREN, O., EASTERN HEADLANDS OF MARIERA.

continent occupied the waste of waters on whose bed the Transatlantic submarine

cables have been deposited. In the same way the existence of an identical organic life in the stratified Miocene rocks of Nebraska and Europe shows that, notwithstanding their present distinct faunas and floras, these two regions at one time formed continuous land. How often during the physical history of the globe has the relief of the continents thus been modified, mere passing forms which arise and vanish like the clouds in the heavens!

Yet who shall relate all the vicissitudes of land and water in the valley of the tropical Atlantic even since Jurassic times? The Azores, Madeira, the Canaries, the Cape Verd archipelago, may themselves possibly be surviving fragments of the continental mass that once filled this oceanic region. They are at all events disposed like a border range skirting a semicircular shore, describing a regular arc, in the same direction as the Central Andes of Peru and Bolivia, and the volcanic system of North America, from Mount St. Elias to the Californian Shasta. These Atlantic groups consist almost entirely of igneous rocks and volcanic cones, like those American border ranges. Hence, if the conjecture be true that craters occur along the lines of fracture from the marine shores, all these archipelagoes would indicate the outlines of the ancient coast of a geological Atlantis. They also greatly resemble each other in their general constitution, forming altogether a distinct group amongst the physical regions of the globe.

These Atlantic archipelagoes are not physical dependencies of the African continent, as might be supposed from a cursory view of the maps. Doubtless most of them lie relatively close to the mainland; but the intervening oceanic depths, hitherto supposed to be inconsiderable, are, on the contrary, now found greatly to exceed 3,000 feet, while a complete separation is established by the contrasts in the respective faunas and floras. In many respects these archipelagoes form an intermediate domain between three worlds. In climate and products the Azores, Madeira, and even the Canaries, belong rather to Europe than to the neighbouring African mainland. Through their first known inhabitants the Canaries formed part of the Berber world, that is, of North Africa; lastly, many of their vegetable species have been brought by the Gulf Stream from the American continent. Historically, also, these groups formed natural zones of transition, serving as links in the discovery of the New World. Even still, Saint Vincent, a member of the Cape Verd group, is the chief shipping station between Europe and Brazil, while the more densely peopled islands in the Azores and Canaries are so many gardens of acclimatisation for the plants introduced across the Atlantic from the surrounding continents.

#### THE AZORIAN WATERS.

The oceanic tract above which rises the Azores archipelago, should be more specially named the Atlantic, for these are the waters which, stretching due west from the Atlas and Pillars of Hercules, were frequented by the seafarers of antiquity. But this expression, Atlantic, that is, "Sea of the Atlas," has gradually been extended to the whole depression separating the Old and New Worlds, from the Frozen Ocean to the Antaretic lands. If no clear natural division can be



drawn between the continental masses owing to the gradual transition of relief, geology, and climate, still less can any well-defined lines of demarcation be traced across the oceanic basin. Following the motion of the sun along the ecliptic, the system of aerial and marine currents is subject to incessant modifications. The seasons are alternately displaced from north to south, and from south to north, while the ever-restless floods, setting now in one, now in another direction, intermingle the climatic zones in their ceaseless changes. It must suffice to indicate in a general way as the dividing zone the relatively narrow section of the Atlantic comprised between the submarine plateau of Western Europe and the Bank of Newfoundland. This is the "telegraphic" bed, the first part of the ocean that has been systematically explored for the purpose of laying the cables between Europe and America. The bed of this region, which has a mean depth of over 2,000 fathoms, presents the greatest regularity, the most gradual slopes and uniform depths for vast tracts in the whole marine basin.

The section which stretches south of the telegraphic plateau, and which may be called the Azorian Atlantic, from the archipelago lying nearest to the centre, is sufficiently well defined southwards by the narrower zone comprised between Africa and South America. A line drawn from the Bissagos Archipelago through the islets of Saint Paul and Fernam de Noronha to Cape Saint Roque, has a length of less than 1,750 miles, and in this dividing zone the waters are somewhat shallower than in the sections lying to the north and south.

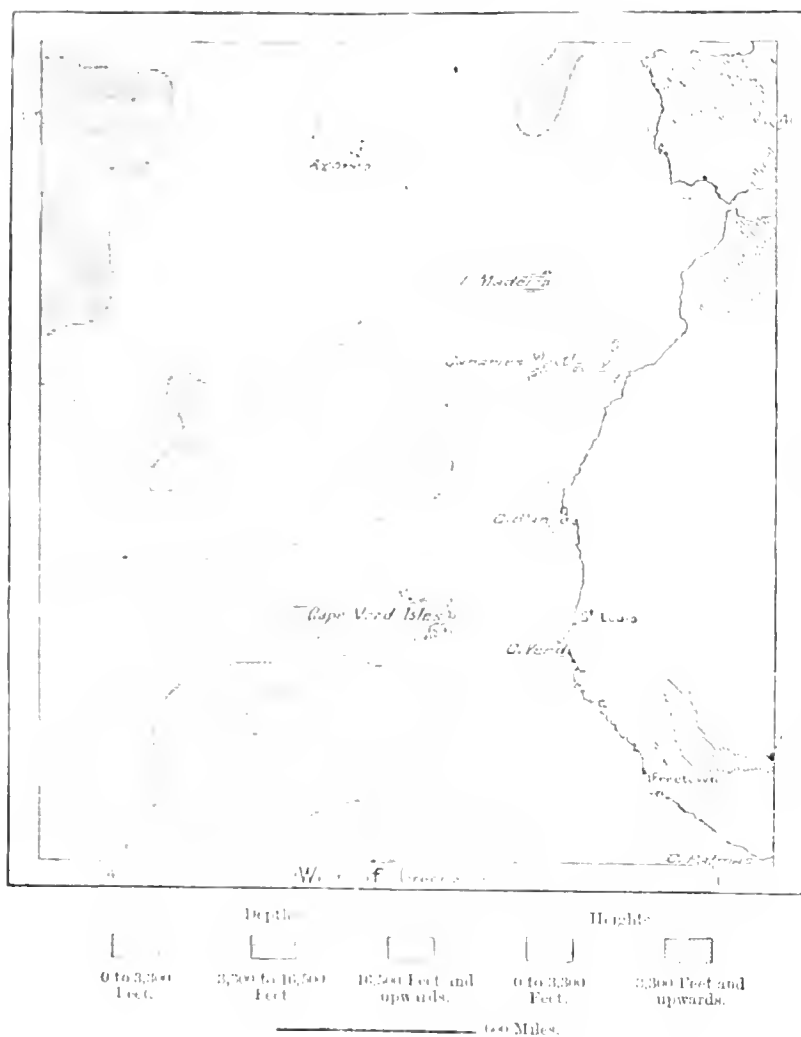
In its general outline the Azorian Atlantic forms a flattened crescent with its convex side facing westwards, and bounded by the United States, the Antilles, the Guiana and Brazilian coasts. The inner concave line is indicated by the African seaboard from the Strait of Gibraltar to Cape Palmas. The bed of this section of the Atlantic is much more irregular than that of the North Atlantic to the south of Greenland and Iceland. The oceanic depths between Africa and the Antilles are not only interrupted by several insular groups and the plateaux supporting them, as well as by the surrounding banks, but in this region there also occur numerous submarine mountains, which, like the upheaved archipelagoes themselves, are very probably due to lava formations. These submarine masses are met chiefly to the west of the Azores, where a sudden subsidence of 3,000 feet would reveal the presence of numerous islands, some disposed in scattered groups between the telegraphic bed and the Azores, others stretching from this archipelago for some fifteen degrees of longitude westwards in the direction of the Bank of Newfoundland. Most of the banks, however, indicated on the old charts—those, for instance, of Sainte-Marie and Kutusov—south of the Azores, have not been met during more recent soundings. Earthquakes, waterspouts, schools of cetaceans, or floating masses of pumice, have often led to the assumed existence of reefs in places where the plummet descends to depths of 14,000 to 16,000 feet without touching the bottom.

Sadden changes of colour, from green to blue, from blue to black, usually correspond in the Azorian Atlantic to varying depths. Such at least is the inference drawn from these coincidences by the members of the *Talisman*

expedition in a part of the Azorian Atlantic presenting great inequalities of depth, and where four soundings revealed 500, 95, 150, and 830 fathoms in rapid succession. Nevertheless, the same naturalists observed that the water was of a sea-green colour between the Canaries and Cape Verd group, where, instead of meeting with comparatively shallow water, they determined a mean depth of no

FIG. 2. DEPTHS OF THE AZORIAN ATLANTIC.

Scale 1:10,000,000.



less than 1,500 fathoms. In fact, this phenomenon of shifting colours in sea-water has been explained by physicists in the most diverse ways. While Toynebee asserts that a green tint prevails when the surface is cool and the atmosphere moist, the observations of the *Gazelle* would seem to show that the contrast between blue and greenish hues is due to the different degrees of salt held in solution, blue water being the most dense.

The systematic exploration of the Azorian Atlantic is still far from complete, some of the recorded soundings occurring only at intervals of several hundred miles. The only section of the ocean whose relief has been accurately determined is the plateau on which have been laid the telegraphic cables between West Europe and the United States. Further south, the reports of vessels specially equipped for scientific expeditions are disconnected, and separated from each other by extensive unexplored spaces. The *Challenger*, the *Magenta*, and long before them, the *Venus*, traversed the waters between the Azores and the coast of Brazil in an oblique direction; the *Gazelle*, the *Saratoga*, and the *Dolphin* visited the eastern section between Madeira and the Cape Verd Islands; the *Talisman* and the *Gettysburg* confined their operations mainly to the vicinity of the archipelagoes; while the soundings of the *Silvertown* were made only for the purpose of laying the cable between the Cape Verd group and the Portuguese possessions on the neighbouring mainland. Off the American seaboard soundings have also been recorded by the *Blake* and several other vessels between Newfoundland and the Bermudas, and thence to Florida and the Bahamas.

But from these isolated records it is impossible to prepare a complete oceanic chart, most of the bathymetric curves having still to be filled in on more or less plausible conjectures. Hence the great discrepancies in the published charts, which are, nevertheless, all based on the materials supplied by the same soundings. Fresh researches will be needed to gradually remove the unknown elements, and at some points new observations have already been begun, for the purpose of verifying or correcting former records. Thus the section between the Cape Verd and Bissagos groups has been twice explored, the more careful soundings, made with improved appliances, revealing greater depths than those previously registered. In the same way the *Talisman* has corrected several of the figures supplied by the *Challenger*. Before the introduction of the new registering plummet, there was always a danger of the line running out indefinitely without indicating the bottom; hence the exaggerated depths reported, amongst others, by Denham and Parker in the Brazilian waters. At the same time the more sensitive modern apparatus is liable to the opposite danger of under-estimating the real depth, by recording the shocks produced, not by contact with the bed of the sea, but by casual friction, the lurching of the vessel, a passing fish, and the like.

#### RELIEF, GEOLOGY, AND TEMPERATURE OF THE AZORIAN BASIN.

The mean depth, calculated by Frummel for the whole depression of the Atlantic, would appear to be about 2,000 fathoms, which is probably somewhat less than that of the Azorian basin. If the Azores with their western submarine continuation constitute a transverse ridge in mid-Atlantic, the prolonged axis of these partly upheaved partly still flooded elevated lands will indicate one of the deepest abysses hitherto discovered in the Atlantic. This abyss lies to the south of the Newfoundland bank, where a sudden subsidence of considerably over 3,000 fathoms would still leave a vast marine basin filled with water. Another great cavity occurs in the

almost immediate vicinity of the West India Islands, where, about 90 miles north of St. Thomas, the *Challenger* reported nearly 4,000 fathoms, supposed to be the greatest depth till the *Blake* recorded 4,350 fathoms some sixty miles farther west. In the Cape Verde waters also, and even between that archipelago and the African mainland, extensive tracts occur with 2,700 fathoms and upwards.

Altogether the Azorian Atlantic presents the form of a double valley, one skirting the African the other the American seaboard, with a long dividing ridge, which runs to the south-west of the Azores in the direction of Guiana. This "Dolphin's Back," as it is called by English geographers, would appear to be prolonged in the southern Atlantic by the so-called "Junction Back," in the direction of a third ridge which takes the name of the *Challenger*. But the recorded soundings are not yet sufficiently numerous to determine this point, although the connecting ridge is already indicated on most bathymetric charts of the ocean.

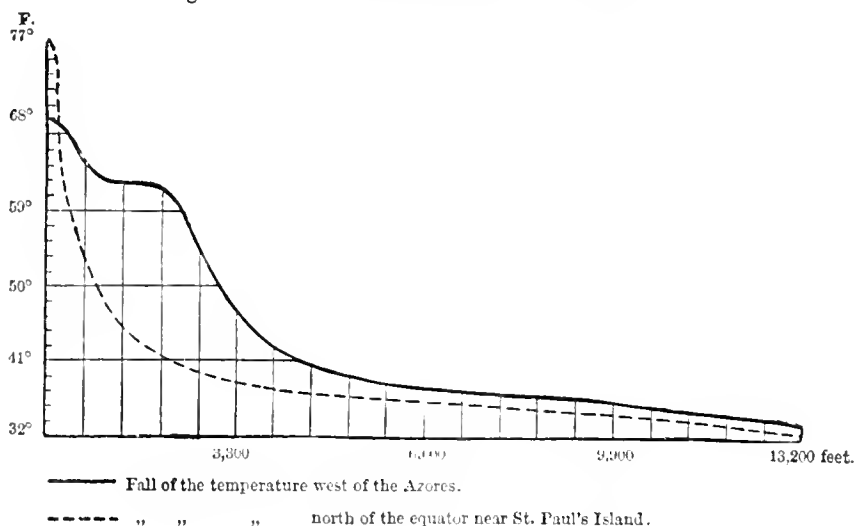
Except near the islands, where coral beds occur, the matter brought up from the bottom during the sounding operations consists mainly of mud presenting little diversity of character. In the shallower sections it contains the remains of globigerines and other animalcules; but in the abysses of over 2,000 fathoms the fragments of shells are so minutely ground and altered by the enormous pressure, that it becomes impossible to detect the mingled remains of organisms in this impalpable substance, whose composition is similar to that of chalk. At still lower depths the characteristic deposit is a sort of red clay. The naturalists of the *Talisman* have noticed three perfectly distinct colours: a reddish yellow on the Morocco coast, a green in the neighbourhood of Senegal, and a white mud round about the Azores. Thus are being formed strata analogous to those of the upheaved rocks belonging to the successive geological epochs of the earth's crust. Most of these muddy deposits on the bed of the Azorian Atlantic contain volcanic elements, especially pumice, which must have come from the centres of explosion in the archipelagos, as they are met in larger quantity round about the islands containing active craters. Besides these products of eruptive origin, the *Talisman* has fished up from depths of 2,000 or 3,000 fathoms specimens of other rocks, such as granite, gneiss, schists, sandstones and limestones. The cavities of these rocks were for the most part filled with a bluish mud composed chiefly of globigerines.

In these tropical seas, as in the northern oceanic waters, the temperature falls with great uniformity. On the surface the water, exposed to the incessantly changing influence of the seasons and atmospheric currents, undergoes corresponding changes of temperature, being alternately cooled by the north-eastern trade-winds and warmed by the land breezes. In the Azorian Atlantic the mean annual temperature oscillates within a range of  $33^{\circ}$  F., although at times rising to  $38^{\circ}$  or even  $42^{\circ}$ , and falling to  $27^{\circ}$  and under. But the action of external climatic influences diminishes rapidly under the surface, and at a depth of 400 feet the water ceases to be affected by the alternating hot and cold atmospheric changes. Within this thin surface layer the temperature falls with the greatest rapidity, so that 200 miles to the south of the Cape Verde Islands the thermometer indicating  $77^{\circ}$  F. at the surface falls to  $53^{\circ}$  at a depth of 300 feet. Lower down the fall is extremely

gradual, a difference of scarcely more than the fraction of a degree being observed in a layer several hundred fathoms thick. The result of two hundred and twelve soundings taken by the *Talisman* shows for depths of 500 fathoms a temperature of rather less than  $50^{\circ}$  F., or  $27^{\circ}$  degrees less than that of the surface waters; at 1,000 fathoms it oscillates round  $39^{\circ}$  F., at 2,000 fathoms it falls to  $37^{\circ}$ , at the bottom approaching  $32^{\circ}$ , which, however, for salt water is not the freezing point. In the region lying between the Azores and the Cape Verd group, the temperature on the bed of the ocean remains at  $34^{\circ}$  F. In the Bay of Biscay it is somewhat lower, and lower still towards the west, near the Antilles and Bermudas, and especially under the equator, where the lowest in the Atlantic basin ( $32^{\circ}5$  F.) has been recorded.

Thus by a remarkable contrast the waters of the Azorian are found to be warmer than those of the equatorial Atlantic. In both regions the mean difference in cor-

Fig. 3.—FALL OF THE TEMPERATURE IN DEEP WATER.

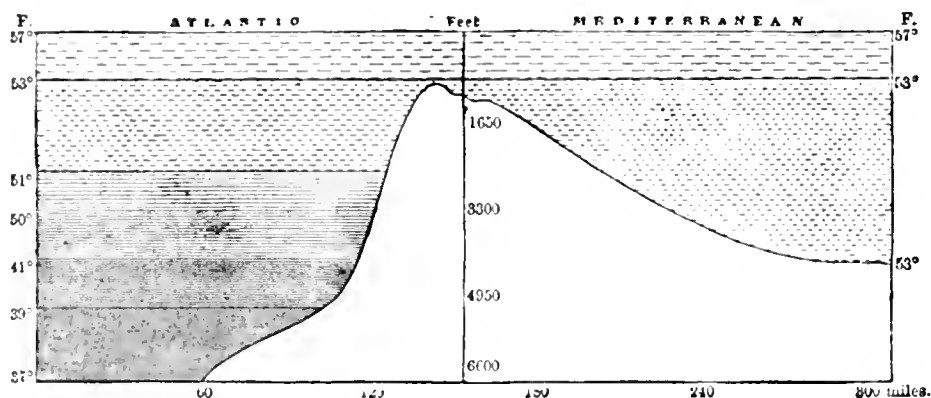


responding liquid volumes of 1,660 fathoms is about  $3^{\circ}5'$  in favour of the northern section as far as  $40^{\circ}$  N. lat. This phenomenon, which seems opposed to the physical laws of the globe, must be attributed to the influence of the oceanic currents. While the region lying between the Antilles, the Canaries, and Cape Verd group is comparatively tranquil, and subject to the broiling heat of the sun, the equatorial waters are to a great extent constantly renewed on the surface by currents from the North Atlantic, which skirt the African seaboard along its whole length from north to south. At lower depths cold waters set steadily from the Antarctic regions along the bed of the West Atlantic to the north-east of the Antilles. According to the observations of the *Challenger* and *Gazelle*, these deep Antarctic currents meet in the zone to the south-west of the Azores, between  $36^{\circ}$ — $37^{\circ}$  N. lat. The thermic equator of the oceanic bed, as indicated by warmer layers than those to the north and south, is thus deflected far beyond the geometric equator of the globe. It crosses the Azorian Atlantic obliquely, 1,200 miles to the north of the equator, so that on

water as well as on dry land the zone of equilibrium between the northern and southern climates falls within the northern hemisphere.

But whatever be the local differences of temperature, the gradual normal fall from the surface towards the bottom down to  $2^{\circ}$  or  $3^{\circ}$  above zero, or even lower, is constant for every part of the oceanic basin. The case is different for the nearly landlocked basin of the Mediterranean, which from the neighbouring ocean receives only surface waters at a temperature always above  $53^{\circ}$  or  $54^{\circ}$  F. M. Faye's well-known theory regarding the density of the terrestrial crust is largely based on the fact that the lower oceanic waters are nearly always icy cold. Being exposed for long geological ages to this cooling influence, the rocky bed itself has become cooler down to a certain depth. It has thus become contracted, with a corresponding increase of thickness and density, so that, bulk for bulk, the submarine are heavier

Fig. 4.—TEMPERATURE OF THE DEEP WATERS ON EITHER SIDE OF THE STRAIT OF GIBRALTAR.



than the continental masses, the latter consequently exercising a less relative influence on the vibrations of the pendulum.

#### ATMOSPHERIC CURRENTS OF THE AZORIAN BASIN.

As regards its aerial currents, the Azorian Atlantic partakes of two different zones, in the north coming within the European zone of westerly winds, in the south within that of the trade winds, that is, the oceanic zone properly so called. The African waters are further distinguished by a special atmospheric system, the neighbourhood of the mainland reversing the normal disposition in the development of the local daily breezes and the periodical monsoons. The Azores lie nearly on the limit between the trade-winds and the opposing currents, which descending from the upper regions, take a normal south-westerly or westerly direction. The winds which set towards the coasts of Iberia, France, and the British Isles have their origin in this central part of the oceanic basin. M. Brault's exhaustive studies on the direction and intensity of the North Atlantic winds show that in summer, Flores, one of the western Azores, forms the focus of a regular aerial rotation. The waters around this island are the only Atlantic region where the northern blow as

frequently as the southern gales, and where the western are balanced by the eastern currents. East of this point the prevailing breezes are northerly, westwards southerly, northwards mainly westerly, southwards easterly. Hence round this central region revolves the great atmospheric ocean of the Azorian Atlantic, a fact which must add greatly to the importance of the submarine cable now connecting the Azores with all the European meteorological stations. The chief station has been established at the point of intersection of the great aerial currents, whence weather forecasts can be announced some days in advance for the west of Europe. The cable, which connects Lisbon with the Azores, was laid in 1893.

The normal movement of the winds in the Azorian Atlantic has been well known since the early navigators began to frequent these waters. All were struck by the regularity of the currents blowing off the coasts of Madeira and the Canaries, to which they gave names betraying their knowledge of the law regulating the circulation of the winds in this region. For the Portuguese these currents setting regularly from the north-east to the south-west are the "geraes" or "general;" for the French the "alizés," that is, "uniform" or "regular;" while for the English they are at first the "tread winds," that is the "steady," or "constant," afterwards by an unconscious but easily understood play of words, changed to the "trade winds." But notwithstanding their general regularity, these sea breezes are subject to certain changes of velocity from season to season, as well as to deflections to right and left of the normal direction. The main features of this atmospheric system may be studied in Maury's pilot-charts, in those of Brault and Toynbee, which give the results of many hundred thousand observations, and which continue the labours of previous meteorologists in this field. During the summer of the northern hemisphere the whole space stretching from the Azores southwards to the fourteenth degree N. lat. is swept by the trade winds, which in winter are deflected much farther south. Thus, while the Azorian waters are temporarily brought within the influence of the variable western breezes, the Central Atlantic as far as 3° or 4° S. lat. is exposed to the action of the trade winds.

Seafarers have also to study the zones of calm or less intense aerial currents, one of which lies about the equator, the other to the south of the Azores, both forming elliptical spaces round which are developed the curves of equal force first described by Brault, and by him named "isaneimonic curves." Lastly there remains to be considered the thickness of the aerial curves constituting the trade winds, above which set the counter-winds which, after rising vertically into the zone of equatorial calms turn northward in the direction of the pole, gradually falling towards the surface of the earth. At the Peak of Teyde, in the Canaries, the intervening zone between the trade and counter-winds rises in summer and descends in winter on the upper slopes of the mountain, and Piazzi Smyth has been able several times to measure the exact thickness of the lower current blowing in the direction from north-east to south-west. But the Teyde Peak is a mere islet in this atmospheric ocean, and there still remain to be studied in the same systematic way the heights of Madeira and the Cape Verd Islands, as well as the general movement of all the counter-winds.

## MARINE CURRENTS OF THE AZORIAN BASIN.

The more salient features of the marine, like those of the aerial currents, in the Azorian Atlantic are already known; but many obscure and doubtful points still remain to be cleared up. It is all the more difficult to follow the course of the circulating waters, since certain currents move too slowly to be directly measured. They can be detected only by means of the thermometer, when their temperature differs from that of the circumambient liquid. In this way has been determined the existence of a deep stream flowing from the Antaretic seas to the equatorial waters and even to the neighbourhood of the Azores; by means of the thermometer the presence of corresponding cool currents from the Arctic Ocean has been revealed in the same region. But as a rule the waters occupying nearly the whole of the Central Atlantic basin have a very perceptible velocity, in some places reaching one or two miles per hour.

Altogether the section of the Atlantic comprised between the telegraph plateau and the equator, between the west coast of Africa and the Antilles, is filled by a vast vortex incessantly rotating, and constantly influenced by the same forces. The current, deflected from the Senegambian coast, bends across the ocean in the direction of the West Indies. Here it ramifies into two branches, one penetrating into the Caribbean Sea, the other skirting the east side of the Bahamas, beyond which it joins the American Gulf Stream, flowing thence east and north-east. The current returning from America towards the Old World traverses the Azorian Atlantic, and in the neighbourhood of the Portuguese and Maroccan coasts bends southwards, thus completing the vast circuit.

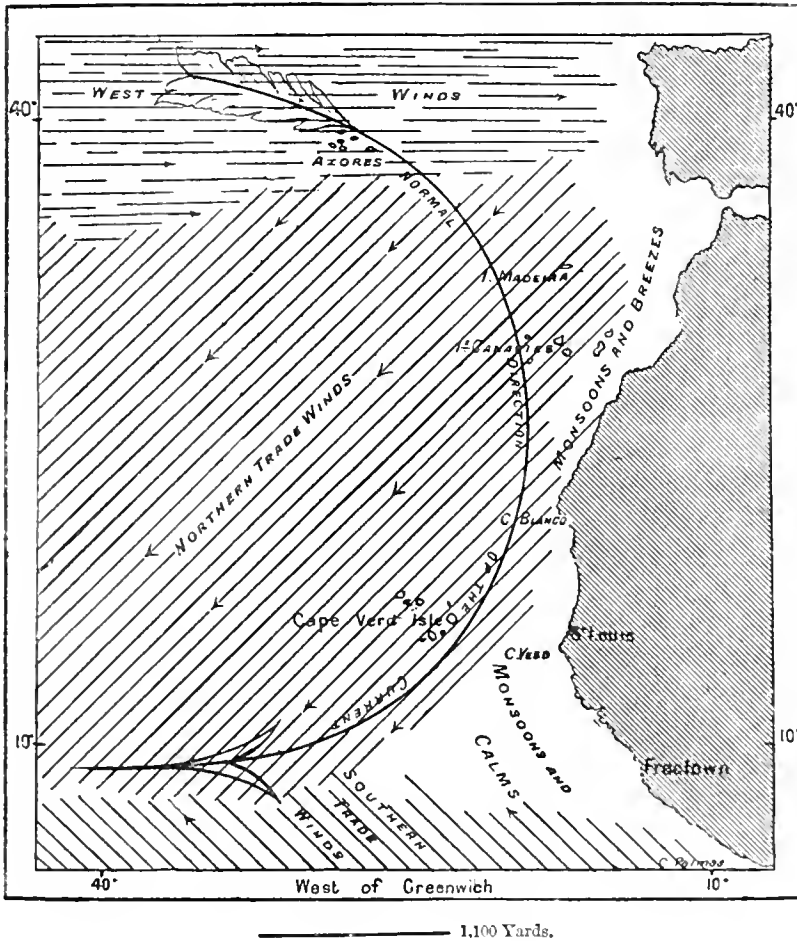
These oceanic streams flow nearly parallel with those of the atmosphere above them, from which they differ only in their more sluggish motion, and in the deflections imposed upon them by the sudden obstacles of insular and continental barriers. The surface waters being directly exposed to the action of the wind, necessarily move in the same direction, lashed into crested billows under high gales, gently rippled beneath the soft zephyrs. The casual winds produce only a passing effect, their action never reaching far below the surface. But regular currents, such as the trade winds, acting from century to century throughout countless ages, have gradually penetrated to great depths, thus largely contributing to determine their general movement. Till recently physicists supposed that the chief cause of the equatorial current flowing westwards in the contrary direction to the globe itself, was the terrestrial rotation, a movement necessarily outstripping that of the encircling oceanic waters. The transverse currents would then be explained in the same way by the greater velocity of planetary rotation acquired by the waters under the equatorial latitudes. According to Mühry, the centrifugal force of the globe, being greater on the equator than elsewhere, is the primary cause of the general oceanic movement. But in any case the varying degrees of salinity and heat between the liquid layers must also tend to produce these currents, although the effects produced by them cannot be determined with the most delicate observations continued for many years by skilled observers.



The mean velocity of the chief currents in the Azorian Atlantic can scarcely be estimated at much more than two-thirds of a mile per hour, or one-fortieth of that of the winds above them. In the eastern section of the main eastern current the movement varies from 15 to 18 miles in the twenty-four hours. In the central parts of the basin, and especially in the Sargasso Sea, the speed slackens, but again increases near the coast and in the straits between the archipelagoes. Although weak, the movement of the "trade waters," aided by the corresponding winds, is

Fig. 5.—ATLANTIC WINDS AND CURRENTS.

Scale 1 : 4,000,000.



none the less of great aid to vessels bound for the New World, and but for these favourable conditions Columbus would certainly never have reached Guanahani. Thanks also to these currents, sailing vessels have often reached America when their crews were endeavouring to gain the islands or penetrate into the South Atlantic waters. Nothing is more probable than that in remote times ships were thus turned from their course, and that Phœnicians, for instance, or other involuntary immigrants from the Old World, founded colonies in America. At the

same time these conjectures regarding early epochs are confirmed by no direct evidence, whereas in modern times many instances have been recorded of ships driven westwards by the trade winds and corresponding marine currents. Thus it was that, in the year 1500, Alvarez Cabral discovered Brazil when bound for the East Indies. Viera y Clavijo relates that a vessel sailing from the village of Lanzarote, in the Canaries, stranded on the coast of Venezuela. In 1731 another ship with a cargo of wine setting sail from Teneriffe for another island in the Canaries, was driven westwards by a storm, at last reaching Port of Spain, in Trinidad. Being provisioned only for five or six days, the crew had been reduced to live exclusively on wine after the supplies were exhausted. On another occasion a magistrate belonging to Terceira, while endeavouring to reach this island from the neighbouring San-Jorge, was driven all the way to Brazil, whence he returned by the Lisbon route.

#### FAUNA OF THE AZORIAN BASIN.—THE SARGASSO SEA.

The *Challenger*, the *Talisman*, the *Magenta*, and several other vessels engaged in exploring the Atlantic, have not only brought back valuable information regarding the temperature, currents, and other features of the marine depths, but the naturalists accompanying them have paid special attention to the organisms inhabiting these waters. The Azorian Atlantic having a higher temperature than the equatorial seas, is extremely rich in animal life. Certain tracts especially in the vicinity of the Canaries seem to be alive with myriads of creatures of every form and colour, some opaque and almost invisible, other transparent and bright with the most varied tints. Cetaceans, sharks preceded by their "pilots" (the pilot-fish or *Naucrates ductor*), and hundreds of other species, animate these waters. Flying-fish are often seen darting from the crest of one wave to another, where they fall a prey to their enemies. The nautilus moves along like a tiny ship studded with white sails; while below this upper fauna, which migrates northwards in summer, southwards in winter, naturalists are now studying a second fauna which has a far wider range, thanks to the greater uniformity of temperature at lower depths.

As remarked nearly a century ago by Humboldt, the sea is above all a centre of animal life, few plants growing except on the rocky cliffs of the islands and encircling continents. Thus even these have their roots embedded on the *terra firma*. Nevertheless the Azorian Atlantic has also its deep-sea flora, the so-called sargasso (sargassum), formerly supposed to be a survival of the vanished Atlantis, a boundless plain of seaweed floating above the engulfed continent. With their branching stems, their lateral membranes resembling indented foliage, their floats almost like berries, these algae, or "grapes of the tropics" (*Fucus natans*, *Sargassum bacciferum*), might easily be taken for plants organised like those of the dry land. Nevertheless they are mere weeds like those of the surrounding shores, in which no trace of reproductive organs has ever been detected. Nor are they so much flotsam, as was once supposed, torn by the waves from the West Indian and

American coasts, and sent drifting in the everlasting vortex of the tropical waters. It was first shown by Meyen in 1830, and afterwards fully confirmed by Leps, that the berry-bearing sargasso is a true oceanic plant, produced in the seas where it is found covering thousands of square miles. A fissure near the middle of the mature plant marks the point where the parent stem has thrown off a younger branch, which will in due course multiply itself in the same way. Thus are developed, not vast "praderias," or meadows, as hyperbolically described by the early navigators, but strings of tufted weeds following in islands and archipelagoes some yards long, at times some acres in extent, constantly changing their outlines under the action of the waves. They are easily separated by the prows of passing vessels, for they form only a surface layer, nowhere superimposed in thick masses. They disappear altogether to the east of the Azores, abounding mostly in the regions west and south-west of this archipelago, where they stretch across a space of over fifteen degrees of latitude and longitude, covering altogether an area of about 1,200,000 square miles. Farther west near the Antilles there occurs another less extensive Sargasso Sea, consisting of more open herbaceous islets, with long broken lines of floating algæ penetrating between the West Indian Islands into the Caribbean Sea.

Like those of dry land, these islands have also their proper fauna, all the sargasso berries being thickly incrustated with white polyzoa. The fishes lurking in their shade or amid their tufted foliage have become assimilated in colour to the protecting environment; hence they are not easily detected even by the naturalist among these algæ, whose prevailing olive-green hue is mingled with white and yellow tints. The *Antennarius marmoratus*, one of these fishes, which was at first taken for a shapeless spray of fucus, from two to four inches long, seems better adapted for walking than for swimming. By a strange coincidence its fins, already suggesting the extremities of quadrupeds, terminate in real toes, the front fins also taking the form of arms, with elbow, fore-arm, and fingered hands. By means of adhesive threads this curious creature builds itself nests in the seaweed. The sargasso fauna comprises altogether sixty species, including fish, crustaceans, and molluscs. The inhabitants of the Azores might establish profitable fisheries in these fields of floating wrack, where they would also find inexhaustible supplies of manure to increase the fertility of their gardens. This growth might also yield large quantities of iodine, bromine, and other valuable chemical substances.

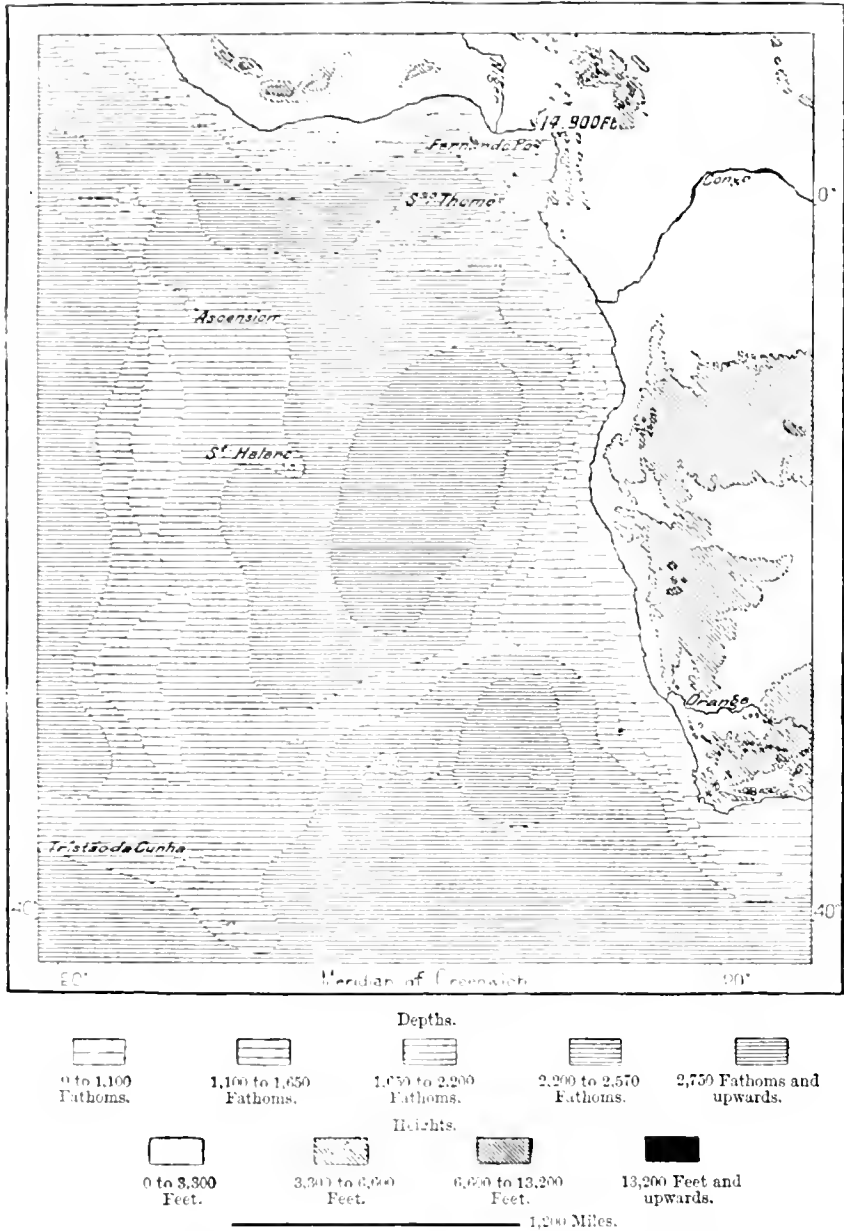
#### THE GUINEA WATERS.

The waters which bathe the west coast of South Africa may be regarded as a distinct basin, at least in the form of its bed, its system of currents, and the insular groups rising above its surface. Thanks to the numerous soundings that have been taken in the neighbourhood of the mainland and islands, and less frequently in the high southern latitudes towards the Antarctic regions, the relief of the marine bed may now be figured on our charts, if not with absolute precision, with sufficient accuracy to reproduce its most salient features. The submerged ridge

running obliquely from north-east to south-west across the section between Liberia and Brazil, abruptly changes its direction under the latitude of Cape Palmas, some five degrees from the coast. Here the higher grounds, still however flooded to

Fig. 6.—DEPTHS OF THE SOUTH AFRICAN ATLANTIC.

Scale 1 : 50,000,000



depths of 1,400 and 1,700 fathoms, trend due north and south between the oceanic depression near the African coast and the still more profound abysses on the American side. This parting line, above which rise the peak of Ascension and the

two insular groups of Tristam da Cunha and Gonçalo Alvarez, forms the median limit between the two sections of the South Atlantic. A straight line drawn along the meridian from Sierra Leone to Tristam da Cunha indicates exactly the "great divide" between the Guinea and Brazilian basins.

The somewhat quadrilateral section comprised between this divide and the African seaboard, and stretching north and south from Cape Palmas to the Cape of Good Hope, is by no means of uniform depth. It may in fact be subdivided into two secondary basins with cavities of over 2,800 fathoms, one extending west and east parallel with the Gold and Slave Coasts, the other of nearly oval form, with its greatest depression to the south-east, of St. Helena. The greatest depth hitherto revealed in this section of the African waters is 3,250 fathoms; and the whole basin, presenting a general depth of over 2,200 fathoms off the south-west coast of Africa, has an area of about 2,800,000 square miles—that is, over twice that of the Mediterranean Sea. South of a line running from the mouth of the Orange River to Tristam da Cunha there stretches a second basin also of 2,200 fathoms, limited southwards by the submarine heights on which stands the island of Bouvet, and which slope gently towards the coasts of the Antarctic lands.

#### CURRENTS OF THE GUINEA BASIN.

In this vast cauldron of the African seas the waters are in continual motion, the mean result of all the shifting and ever opposing currents being a general movement running parallel with the coast from the Cape of Good Hope to Cape Lopez, then trending westwards in the direction of the New World, and returning by the south and east to complete this vast circuit. Thus this southern vortex corresponds with that of the North Atlantic, of which the Gulf Stream forms the western branch. But its general movement is reversed, while also presenting more uniform outlines, thanks to the greater regularity of its basin. Its mean diameter may be estimated at 2,400 miles, with a varying velocity which, however, is never very great except under the influence of high winds. During her voyage from the Cape Verd Islands by Ascension to the mouth of the Congo, the *Gazelle* found a part of the equatorial current south of the equator moving westwards with a velocity of  $1\frac{1}{4}$  mile per hour, whereas most other observations had recorded a speed of little over half a mile, and in some cases not more than 500 feet. In many parts of these oceanic regions there is in fact no perceptible motion at all, the whole mass accomplishing its vast circuit by a slow movement of translation, while here and there the obstruction of the coastline or the local winds produce secondary currents running in the opposite direction to the main drift.

#### THE GUINEA STREAM.

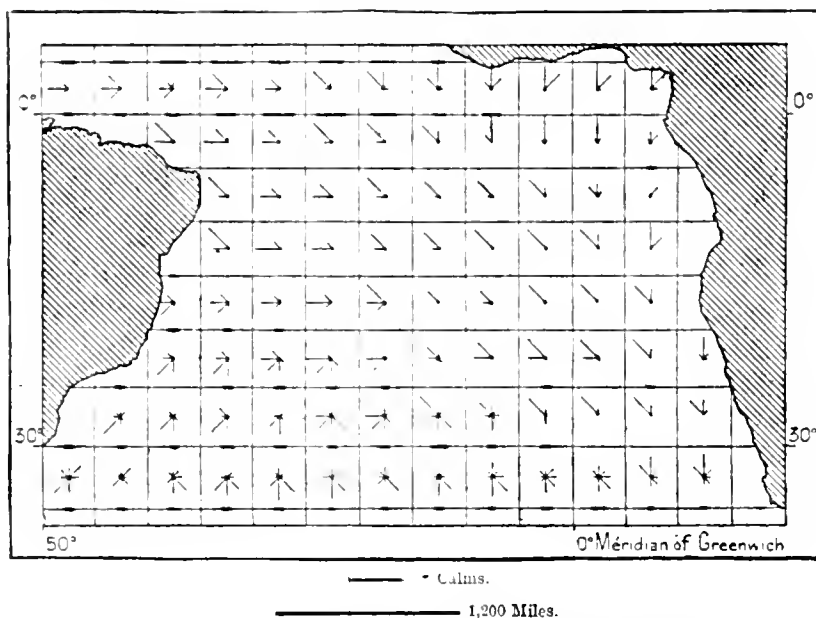
The most powerful of these backwaters is that which skirts the continental seaboard between Cape Palmas and the Bight of Biafra, and which sets from west to east with a mean velocity of a little over two-thirds of a mile an hour. But off Cape Palmas it attains an occasional speed of  $3\frac{1}{2}$  miles, or nearly 90 miles a day. This "Guinea Stream," as sailors call it, intervenes between the two sections

of the equatorial current, which flow from the Old towards the New World, so that a vessel sailing either east or west parallel with the equator may take advantage either of the main or the counter current to accelerate its speed. The Guinea Stream shifts with the seasons, in September occupying more than half the breadth of the Atlantic to the south of the Cape Verd Islands.

The cause of this movement from west to east in the same direction as that of the globe itself, is a question that cannot be discussed apart or independently of the still unsolved general problem of the circulation of the oceanic waters. The part played in these movements by the rotation of the globe, by the winds, the varying temperature from the surface downwards, the varying degrees of salinity

Fig. 7.—MEAN ANNUAL DIRECTION OF THE WINDS IN THE SOUTH AFRICAN ATLANTIC.

Scale 1 : 80,000,000.



The length of the arrows indicates the frequency of the winds in each marine space of 5 degrees.

The number of calms is at least one in ten days in each marine space where the stroke occupies half the lower side of a rectangle.

in the intermingling waters, cannot yet be determined. Certainly none of the different theories suffice to explain all the phenomena observed by the few meteorologists who have themselves visited these oceanic regions. In general the Guinea Stream is regarded as a lateral backwater, a "compensating current" produced by the reflux of the equatorial waters. It cannot in any case be attributed to the direct action of the winds, for it flows in the opposite direction to the trade winds and monsoons prevailing in these waters. Even off the Niger delta and the Cameroons, where the Guinea Stream trends south-eastwards and then southwards till it merges in the equatorial current, the movement is still opposite to the normal direction of the winds. To this phenomenon of the Guinea Stream running counter to the winds and laterally pressed upon by another marine

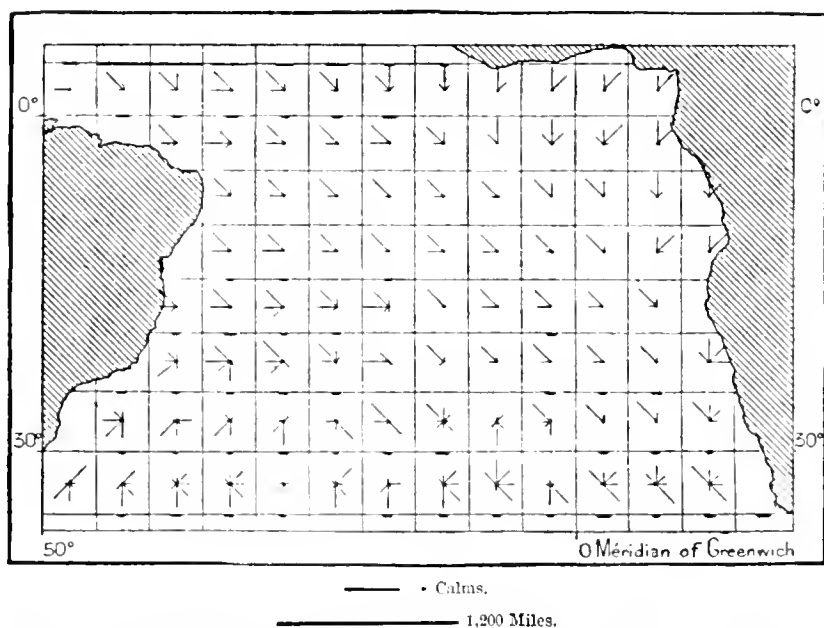
current flowing in the opposite direction, is perhaps to be attributed the tremendous surf, forming the so-called "bar," which renders the approach to the Guinea coast so difficult and at times so dangerous between Cape Palmas and the Cameroons. A little "Sargasso Sea" like that near the Antilles occurs also off the mouth of the Congo in the secondary vortex produced by the collision between the Guinea Stream and the other current flowing from the south along the coast of Benguela and Angola.

#### ATMOSPHERIC CURRENTS—RAINFALL—SALINITY.

The anemometric charts of Brault and other observers show that in the South African Atlantic the mean annual direction of the winds is marked by great

Fig. 8.—SUMMER WINDS IN THE SOUTH AFRICAN ATLANTIC.

Scale 1 : 80,000,000.



The length of the arrow indicates the frequency of the summer winds in each marine space of 5 degrees.

The number of calms is at least one in five days in each marine space where the stroke occupies all the lower side of a rectangle.

regularity. Storms properly so called are extremely rare, and the "general" winds—that is to say, the south-east trade winds—blow with such uniformity that, especially at the time of the solstices, seafarers in these waters are able to calculate with great probability the length of their passage. But this regularity prevails only on the high sea, as near the coast the aerial currents are deflected inland. Above the English, German, and Portuguese possessions in South Africa, as well as about the coastlands on the Lower Congo and Ogoway, the winds blow from the south-west or else directly from the west, whereas on the coasts to the west of the Cameroons they come from the south. These are the vapour-charged atmospheric currents which bring the rains to the coastlands, and which deluge the Cameroons

uplands throughout the whole year. The other elevated lands on this seaboard also receive a large share of the rainfall, which is nowhere heavier in any part of the Atlantic than in this oceanic region exposed to the influence of the north-east and south-east trade winds between the projecting coasts of West Africa and South America. Here the still air arrests the rain-clouds brought by both trade winds, the vapours are condensed and precipitated in tremendous downpours on the subjacent waters. In many places this rain water, owing to its less specific

Fig. 9.—CURRENTS OF THE SOUTH ATLANTIC AND LINES OF ICEBERGS.

Scale 1 : 87,000,000.



gravity, spreads over the surface in sufficiently thick layers to enable passing vessels to replenish their supply of fresh water.

Although incessantly intermingled by the aerial and marine currents, the waters of the Atlantic basin differ none the less in their degree of salinity not only on the surface, but also in the deeper strata. The most saline is that encircling St. Helena, the specific gravity of which is 1.0285. Owing to the heavy rains in the region of calms the proportion is less in the Guinea Stream, the difference being as much as two or even three thousandths in the north-east part of the



Guinea waters, with which is mingled the discharge of the Niger and Congo, the two African rivers which have the greatest volume. In the South Atlantic regions also the water is less salt than in the neighbourhood of St. Helena, in consequence of the melting of the icebergs and floating ice brought by the oceanic currents from the Antarctic lands. These frozen masses penetrate farthest north in the months of June, July and August, that is, in the Austral winter season, when these fantastic glittering forms — domes, towers, obelisks — continually changing their outlines with the displacement of the centre of gravity, are met in the Cape waters, and even as far as  $35^{\circ}$  S. latitude. Farther south the ocean is strewn with myriads of floating fragments, which to vessels rounding the African continent present the appearance of an endless panorama of gorgeous palaces, temples, colonnades all aglow in the fiery rays of the setting sun.

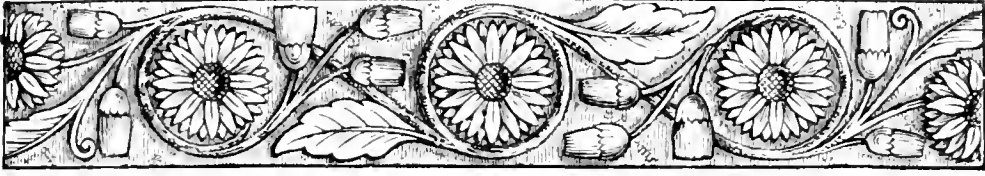
#### TEMPERATURE—FAUNA.

While diminishing the salinity, these icy crystals also considerably lower the temperature of the liquid masses flowing from the equatorial regions. Between the Cameroons and the Cape there is noticed on the surface a gradual decrease of heat, corresponding to that which also takes place in the atmospheric strata. The isothermal lines follow with considerable regularity from  $82^{\circ}$  F. on the Slave Coast to  $59^{\circ}$  towards the southern extremity of the continent. But in the deeper layers the vertical decrease down to the bed of the ocean presents some remarkable contrasts, due to the inflow from the broad Antarctic seas to the gradually narrowing Atlantic basin. Of these contrasts the most striking is the relatively low temperature of the equatorial waters. Taking the mean of the liquid mass lying under the equator between Africa and America, the average for the tepid surface and cool deep waters is found to be about  $41^{\circ}$  F., that is to say, considerably less than a degree higher than that of the tracts stretching to  $33^{\circ}$  S. latitude. On the other hand these same equatorial waters are fully four degrees colder than those of the north temperate zone under  $33^{\circ}$  N. latitude. This surprising contrast, attesting the great preponderance of the Antarctic over the Arctic current, occurs regularly in each of the isothermal zones between the two sections of the Atlantic lying north and south of the equator. At equal depths the greatest differences of temperature are recorded. Thus, under  $33^{\circ}$  N. latitude, a sounding-line 500 fathoms long records a mean of about  $50^{\circ}$  F., while at the same distance to the south of the equator the average is found to be only  $39^{\circ}$  F., showing a difference of eleven degrees between the two corresponding latitudes. The temperature falls slightly in the neighbourhood of the coast, owing to the steady influx of deep sea currents. In some places a difference of three degrees has been observed between the in-shore and outer waters within a distance of a few miles.

The abrupt changes of temperature in the South Atlantic serve to limit the range of animal life, and to modify its outlines with the seasons. The deep-sea species living at great depths in a uniform cold medium, can, of course, extend

their domain from the Arctic to the Antarctic Ocean, but it is very different with the cetaceans and other animals confined more to the surface waters. Thus the southern whales, till recently very numerous in the tracts stretching west and south-west of the Cape of Good Hope as far as the small Tristam da Cunha Archipelago, never reach the latitude of St. Helena. According to Maury's expression, they are arrested by the tepid tropical waters as by a "wall of flames." The Lusitanian and Mediterranean species in the same way diminish gradually southwards, as do also those of the West Indies. Nevertheless, a large number of the latter are still met in the neighbourhood of Ascension, in the very centre of the South Atlantic. About the river mouths again animal life is much more abundant than in the open sea. As we approach the Congo estuary the number of fishes inhabiting the surface waters steadily increases, causing a corresponding increase of the phosphorescence visible at night, notwithstanding the diminution of salinity caused by the great volume of fresh water discharged by the Congo.





## CHAPTER II.

### WEST AFRICAN ISLANDS.

#### THE AZORES.



THE Azores, or "Hawk" Islands, are the most oceanic of all the Atlantic archipelagoes. Rising from abysses some  $2\frac{1}{2}$  miles deep, San-Miguel, their easternmost point, lies 830 miles due west of the Portuguese Cape Roca, and 930 miles from Cape Cantin, the most advanced headland on the Marocco coast. The archipelago is still farther removed from the New World, Corvo, the north-westernmost islet, being over 1,000 miles distant from Cape Race in Newfoundland, the nearest American headland, 2,400 miles from St. Thomas, at the north-east angle of the Antilles, and 1,800 from the Bermudas, which, although lying in deep water, may still be regarded as belonging geographically to America.

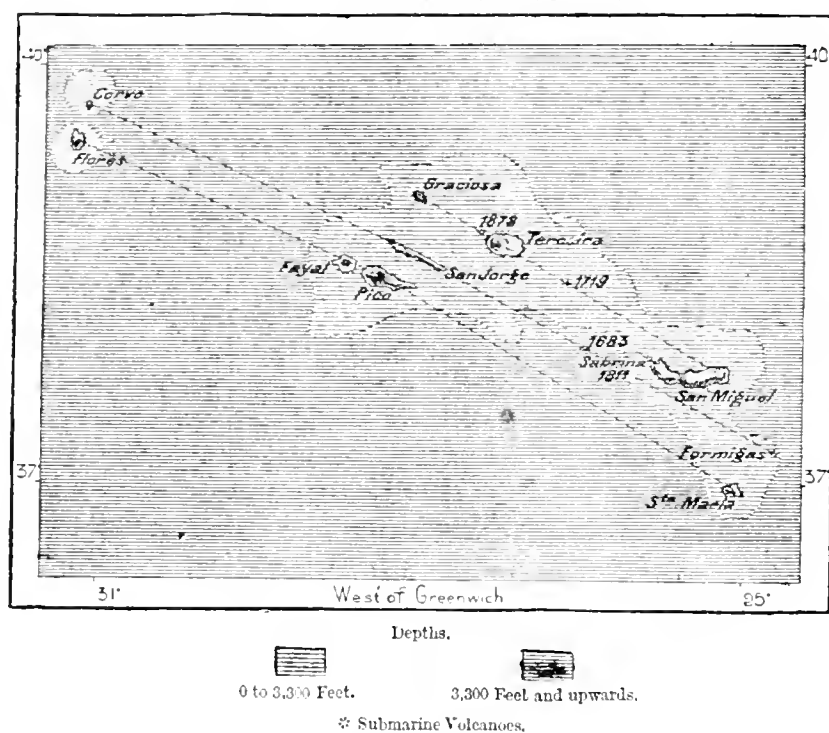
Disposed in three groups of unequal size, the Azores are scattered over nearly three degrees of latitude and more than six of longitude; but of this vast marine area, about 80,000 square miles in extent, the space occupied by dry land is extremely small, all the islands together having an area of scarcely more than 1,000 square miles. The population, however, is relatively greater than that of the mother country, Portugal, exceeding two hundred to the square mile, although there is much waste and uninhabitable land on the upper slopes and about the volcanic cones.

Since the middle of the fourteenth century, that is to say, eighty years before they were first visited by the Portuguese, the Azores were already known to the Mediterranean seafarers navigating the dreaded waters of the "Mare Tenebrosus," or "Gloomy Sea." A Florentine document, dated 1351, already presents a correct outline of the whole group, except that they are turned in the direction from north to south instead of from south-west to north-east. Two of the islands have even preserved, in slightly modified form, their Italian names; the farthest removed from Europe, after having been called the *Insula de Corvis Marinis*, has become the *Ilha do Corvo*, or "Raven Island;" while San-Zorze, whose very name shows that it was a Genoese discovery, has taken the Spanish appellation of San-Jorge. The Azores were first sighted in 1431 by the Portuguese while occupied with the

systematic exploration of the Atlantic, which constitutes their title to renown during the age of the great nautical expeditions. On this occasion they saw nothing but the reefs of Formigas between San-Miguel and Santa-Maria; but Gonçalo Velho Cabral, returning to these waters next year, discovered Santa-Maria itself, which Don Henri presented to him as a fief. Twelve years afterwards he landed on San-Miguel, the chief island in the archipelago, which he also received in vassalage under the Portuguese crown. The eastern group of Cabrera, or Las Cabras, had already formed part of geographical nomenclature, but another twenty years passed before the last of the nine members of the group was finally surveyed.

Although scattered over a vast space, the islands have many features in common. All are hilly and dominated by volcanic craters whence lava streams have been discharged, and all terminate seawards in rugged masses of black scoria

Fig. 10.—VOLCANIC AXIS OF THE AZORES.



presenting a forbidding aspect. With the exception of Santa-Maria, at the south-eastern extremity, which contains some limestone beds dating from the Miocene period, all are composed exclusively of ashes, scoriae, and lavas. Geographically they form three perfectly distinct groups, of which the easternmost is the largest, although comprising only the two islands of San-Miguel and Santa-Maria, with the reefs of Formigas, which may be regarded as the erests of a submerged rocky islet.

The central group consists of five members—Terceira, which has at times given its name to the whole archipelago; Graciosa, San-Jorge, Pico, and Fayal. The

western group, least in extent, population and historical importance, comprises only the two remote islets of Flores and Corvo, which are alone disposed in the direction from north to south, all the others forming volcanic chains running north-west and south-east. A comprehensive study of the whole archipelago shows that it constitutes three such parallel chains equidistant from each other, the first formed by Graciosa, Terceira, and San-Miguel, the second, or central, by Corvo, San-Jorge, and the Formigas, the third, or southernmost, by Flores, Fayal, Pico, and Santa-Maria. The regular parallelism is perhaps to be attributed to successive eruptions occurring on fractures or crevasses in submerged ridges aligned in the direction from north-west to south-east.

The lavas of the Azores are much more recent than those of Madeira and the Canaries, none appearing to be older than the Miocene period, that is, the epoch whence date the limestone formations of Santa-Maria. At present the volcanic activity, if not extinct, is at least very quiescent at the two extremities, that is, on the one hand in Santa-Maria and the eastern part of San-Miguel, on the other in the Flores and Corvo group. But the fires still rage under the central islands, especially under the volcano of Pico, and still more fiercely in the western part of San-Miguel. Here have occurred all the most terrible catastrophes, eruptions, and earthquakes during the four centuries that constitute the historic period of the Azores.

Indications of upheaval are visible in Terceira, where the beach, although composed entirely of volcanic rocks, is, at certain points, strewn with boulders of crystalline and sedimentary origin, such as granites, quartz, schists, sandstones, and limestones. These foreign fragments have evidently been deposited on the strand, but are now scattered to a distance of over half a mile inland in sufficient abundance to be used by the peasantry, with detached blocks of lava, in the construction of their enclosures. On Santa-Maria are also found some fragments of gneiss, the origin of which it is difficult to determine. The great depth of the surrounding waters excludes the idea that they might have been torn from some surviving reefs of the submerged Atlantis. Nor are these blocks rounded like the shingle long exposed to the action of the waves, but have for the most part preserved the sharp outlines and freshness of their breakage. Hartung supposes that they may have been brought during the glacial period from America, where, under the same latitude, the glaciers deposited their moraines, while detached boulders were carried with the drift ice to the Azores.

#### CLIMATE.

All these islands enjoy an equable and healthy climate, which would seem almost perfect but for the violence of the Atlantic gales. Notwithstanding the sudden shifting of the winds, the changes of temperature are very slight, the seasons following each other without any marked transitions. Autumn especially delights the visitor, although the leafy groves lack those varied tints which at that period are characteristic of the European, and still more of the North

American scenery. The annual range of temperature from season to season scarcely exceeds 14° F., although at Horta M. de Bettencourt recorded a difference of over 45° (42° to 87°) between the hottest and the coldest day in the whole year. The chief climatic changes are due to the direction of the winds, the Azores lying as nearly as possible in the intermediate zone between the trade and counter winds. When the southern breezes prevail it is warm and moist, becoming cool and dry when the wind shifts to the north. Hence a notable contrast between the two slopes of the islands, one being exposed to the balmy zephyrs and rains of the south, the other to the northern atmospheric currents. Thus in the Azores the climatic conditions are determined less by latitude than by the aspect of the land.

In general the Azorian climate presents a mean between those of Lisbon and Malaga on the one hand, and that of Madeira on the other. Between the latter island and Fayal the yearly temperature differs only by about two degrees, but in the Azores the range from winter to summer is relatively considerable. Lying 350 miles nearer to the pole, they have a colder winter but also a hotter summer than Madeira, although the heat is never so great as on the mainland of Portugal lying under the same latitude. Altogether the Azorian climate is more extreme than that of Madeira, and much less agreeable for strangers. Snow is rarely seen in the lower valleys, but hail often falls during the winter storms, and at times the hills remain for a few hours wrapped in white. It also freezes on the higher grounds, and in San-Miguel people are said to have perished of cold on the plateaux, rising 3,000 feet above sea-level. At the same time strangers are much more sensitive to the cold, in consequence of the high gales and moist atmosphere. The rainfall due to the great oceanic winds is very abundant, being at least twice as heavy as in Madeira. At Horta M. de Bettencourt recorded a hundred and ninety-six rainy days and eight of hail, with a total rainfall of 62 inches. It rains in all seasons, but especially in winter when the west winds prevail, and notwithstanding their steep incline, many of the mountain slopes are clothed with mosses and turf, resembling the peat bogs of Ireland. The rainfall, however, diminishes from west to east, Santa-Maria, the easternmost, being also the driest island of the group. To protect themselves from the moisture and from sunstroke, always to be feared in damp climates, the peasantry in all the islands wear a sort of cloth hood, covering head and shoulders, and somewhat resembling the "sou'-westers" worn by sailors.

#### FLORA.

Compared with that of Madeira and the Canaries, the indigenous flora is very poor. In the whole archipelago Watson discovered only three hundred and ninety-six flowering and seventy-five flowerless plants, mostly belonging to European species. One-eighth of the plants are common also either to the other Atlantic groups, or to Africa and America, leaving not more than fifty species peculiar to the Azores, amongst them a cherry, which has become very rare, and which would have probably disappeared had it not been introduced into the

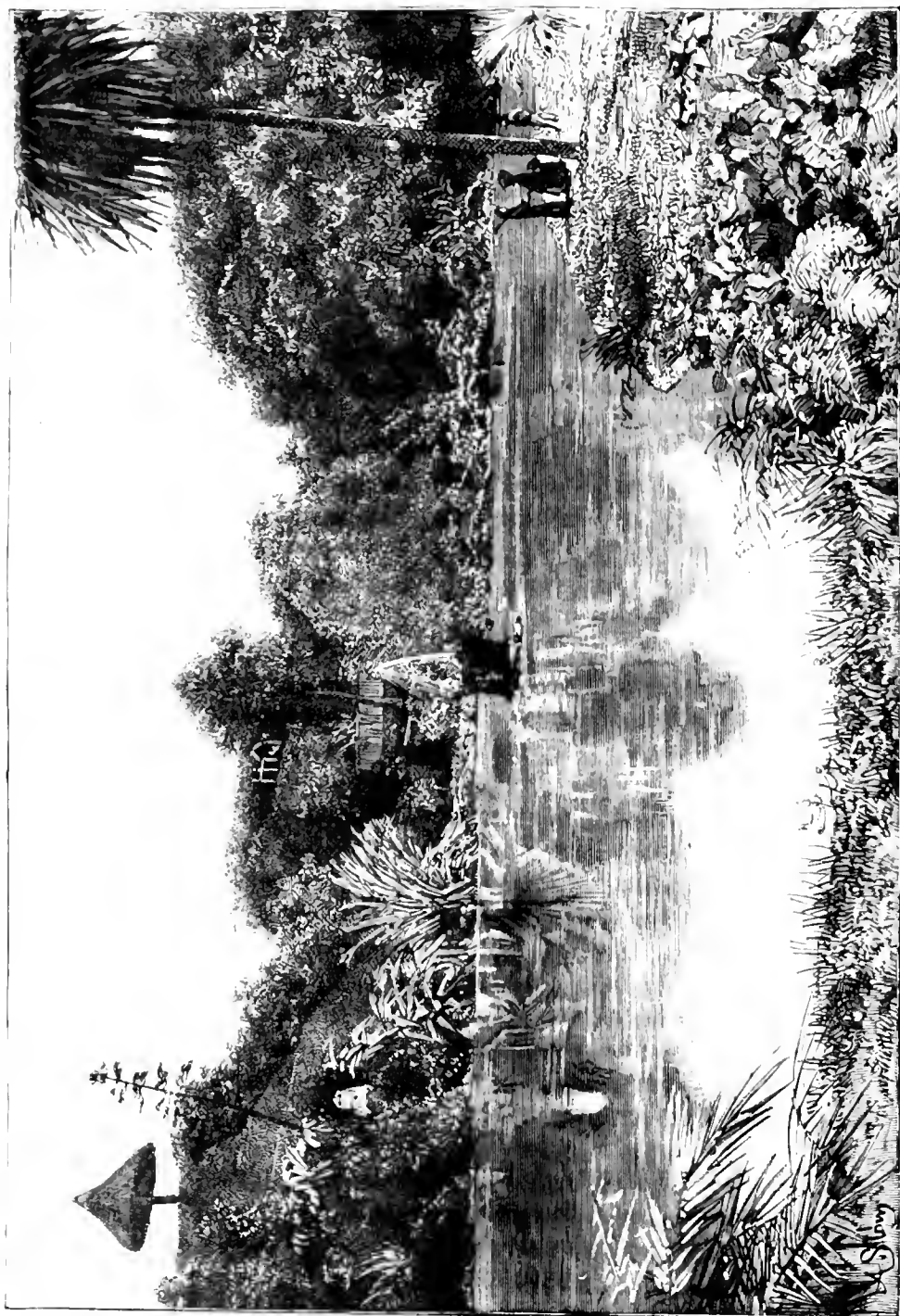
gardens. The decided predominance of the European flora is appealed to by those geographers who claim the Azores as a natural dependency of Europe. Hence the term "Western Islands" applied to them by English mariners, as to European lands lying farther west than all others. Even the indigenous species nearly all resemble European types, so that the question arises whether they are to be regarded as independent species, or merely simple varieties gradually transformed by isolation. Nor is it any longer always possible to say with certainty whether those common also to Europe have been introduced intentionally or unconsciously, or whether they form part of the native flora assimilated by analogous surroundings.

The original flora includes not more than five trees, and five or perhaps six shrubs, all inferior in size to the allied plants in Madeira and the Canaries. The palm family, so characteristic of the tropical regions, was absent at the time of the discovery, the prevailing vegetable forms being grasses, reeds, sedge, ferns, all suitable to a moist climate. At the arrival of the Europeans the hillsides were clothed with timber. Fayal, that is the "Beech Grove," owed its name to the forests of *Myrica faya*, which the mariners mistook for beech-trees. Graciosa and Flores were also indebted to their beautiful flora for these appellations, and even so recently as the present century Flores still possessed magnificent groves of the yew, all of which have since been cut down. In many parts may also still be seen huge trunks almost concealed beneath the mosses and other lower growths, while others have been partly covered by the lavas. The most remarkable of the woody plants on the elevated lands are the faya, or "laurel of the Canaries," and a species of juniper (*Juniperus oxycedrus*) spoken of by the natives as a cedar. It is the only conifer in the archipelago, where it is found usually associated with the arborescent heaths and myrsine of African origin.

The heights, being now destitute of fine timber, mostly present a sombre and monotonous aspect, while the ravines and lower valleys still reveal a varied and picturesque vegetation. For although large trees have nearly everywhere disappeared from the open tracts, all parts of the archipelago where the scoria had not acquired a metallic hardness are clothed with verdure. Thanks to their uniform and moist climate, the Azores are well adapted for experiments in acclimatisation. A large number of species from the tropical and temperate regions of Australia, the Old and New Worlds, have already been introduced, and thrive admirably in this "natural conservatory." Hence the taste for pleasure-grounds developed among the wealthy natives. In a few brief years they see their poplars, eucalyptuses, casuarinas springing up to a height of 40 or even 60 feet, although still seldom rivalling in size their congeners in Europe, the Canaries, and elsewhere. In the gardens of Fayal and San-Miguel the native shrubberies have been replaced by thickets in which the oak, beech, and lime of Europe intermingle their foliage with the taxodium (cypress) of Louisiana, the Virginian tulip-tree, the Brazilian araucaria, the cedars of Lebanon and the Himalayas, the camphor of Japan, the Australian acacia, and the palms of both hemispheres. The fruit-trees and cultivated plants from the Portuguese orchards and arable lands,

the bananas and *cassia* of Ethiopia are invading the coastlands, while the European

Fig. 11.—Island of SAN-MOULE. VIEW TAKEN IN A GARDEN NEAR PONTA-D'ALGARA.



weeds are driving to the uplands or exterminating the old indigenous vegetation.



Efforts have also been made to re-plant the waste spaces and higher slopes of the mountains. In this way the whole of San-Miguel has become a garden of acclimatisation, in which a thousand arborescent species have been naturalised, and in some cases multiplied prodigiously. Amongst the most valuable forest-trees thus introduced are the marine fir, the Japanese cryptomeria, the eucalyptus, acacia, cypress, and oak.

#### FAUNA.

The indigenous fauna is much poorer than the flora of the Azores. On the first arrival of the Europeans it comprised no vertebrates except birds, although some writers speak of a bat found also in North Europe. But this animal was perhaps introduced from Flanders by the Belgian settlers in the sixteenth century. From Europe also came the rabbit, the ferret, the weasel, the black rat that nests in trees, the grey rat, and mouse. Of birds there are about thirty species, some remaining throughout the year, some migrating, but nearly all common to Europe, or at least the Atlantic. The green canary was formerly very common, but has been proscribed as a great destroyer of corn. The bird whence the archipelago takes its name of the Azores, or "Hawk" Islands, appears not to be a hawk at all, but a species of buzzard. There are no reptiles, except two species of lizard found in Graciosa, where they are recent arrivals, perhaps from Madeira. The frog, also a stranger, has multiplied rapidly, while the toad, brought from the United States, has failed to become acclimatised. The African locusts have occasionally alighted in swarms and devoured the crops. There are fresh-water eels, but no river molluscs, although as many as sixty-nine species of land molluscs have been found, nearly half of which occur nowhere else. They represent, with six varieties of coleoptera, nearly all the primitive Azorian fauna. Even marine shells are extremely rare, and in some places one may walk for miles along the beach without meeting with a single specimen. The deep-sea fauna is represented chiefly by the cetaceans, porpoise, dolphin, spermaceti and *Physeter macrocephalus*; of the last named, formerly very numerous, about a hundred and fifty are still annually captured by the American whalers.

#### INHABITANTS.

When first visited by the Italian and Portuguese navigators, the Azores were found to be uninhabited. The pioneers of the colony founded in 1444 by Gonçalo Velho Cabral on San-Miguel were some "Moors," sent forward, so to say, to test the climate and resources of the country for the Portuguese who were to follow them. Afterwards the large owners of feudal estates introduced with the white peasantry a certain number of black slaves, by whom a slight strain of dark blood was transmitted to the other settlers. The Jews expelled from Portugal at the beginning of the sixteenth century were also condemned to slavery and distributed over various districts in San-Miguel. Some thousand Flemish colonists introduced into the central group by Jobst van Huarter gave the name of "Flemish Islands"

to the whole archipelago, while Fayal was more specially named "New Flanders." In 1622 there still survived some Belgian families with the characteristic features of their race; but they had ceased to speak Flemish, and had even changed their patronymic names into Portuguese forms. Thus the Van der Haegens, great landowners in San-Jorge, assumed the familiar Portuguese appellation of Da Silva. Many shipwrecked mariners of other nations also became merged in the general population, in which the Portuguese enjoy such a decided predominance that all these foreign elements may safely be neglected.

But whence comes the great bulk of these Portuguese themselves? Little can be gleaned on this point from official documents, or the conflicting evidence of physical types, dialects, popular songs, local usages, and the like. Some authorities bring the San-Miguel islanders from the province of Minho, in North Portugal, others from Algarve, in the extreme south. In any case the Azorians are far from presenting a uniform type, the greatest variety being presented by the different communities throughout the archipelago. They are generally under-sized, with rather coarse features, large mouth, thick lips, ill-shaped nose, and cranial capacity decidedly inferior to that of the average European, although the Azorians are said by some authorities to hold their own in science and literature with their continental fellow-countrymen. In the form of the head and physical characteristics they forcibly recall the "Celtic" type of Auvergne and Brittany as described by Broca and other French anthropologists. By a curious coincidence, the village of San-Miguel, noted for a French pronunciation of certain syllables, also bears the name of Bretanha, like the Armorican peninsula. On the other hand the Santa-Maria dialect is distinguished beyond all others for its numerous archaic expressions.

Although by no means of a fanatical disposition, the Azorians are very religious, the frequent earthquakes tending to foster that sentiment of fear which theologians hold to be "the beginning of wisdom." At every shock the natives rush for safety to the churches, and it is related that on one occasion after an agrarian rising, an earthquake having overthrown some houses in the village of Povoação, the terrified people immediately fell on their knees with loud cries of repentance and supplications to the landowners for pardon. The miraculous images are visited by countless pilgrims, and their shrines enriched with offerings. An *Ecce Homo* in the Ponta-Delgada convent is specially renowned for its wonder-working powers not only throughout the archipelago, but even in Portugal and Brazil. But despite their religious fervour, there is a less variety of superstitions among them than in the mother-country, which may be due to a less vivid imagination produced by their monotonous lives, uneventful history, poor surroundings, and absence of ancient monuments.

Rapid intellectual changes are now also taking place in this hitherto secluded community, thanks to the long voyages made by the emigrants and those engaged in the whale fisheries. Thousands have already visited Portugal, Brazil, the West Indies, the Sandwich Islands, and the Arctic Seas, and no other insular population probably contains so large a proportion of men who have made the

tour of the world. Amongst the rural classes marriage is nearly always an affair of pure convenience and interest. A few traces still survive of the former seclusion of the women, noticeable in the construction of the houses and especially in the costume. Enveloped in their large hooded cloaks, the Azorian women seem to flit about like phantoms. Many of these hoods are still so contrived as to meet in front, leaving only a narrow opening for the wearer with which to see without being seen. In the district of San Miguel the wife, when paying a visit or going to mass, may not walk by the side of her husband, who struts majestically a few

Fig. 12.—WOMEN OF FAYAL AND SAN-MIGUEL.



paces in front. Formerly the ladies in the towns could not even go abroad to make their purchases, but had to do all their shopping at home, never leaving the female apartments except to visit the church. At the approach of a man it was even etiquette to turn towards the wall in order to avoid a profane glance.

The population increases rapidly by natural excess of births over the mortality, families being very numerous, and the death-rate amongst children relatively extremely low. At the same time the survival even of the weaker offspring tends apparently to bring about a general degradation of the race, and men are no

longer seen in the archipelago at all comparable to the sturdy peasantry of North Portugal. Epidemics occasionally break out, and the old chroniclers speak of "pestilence," which in combination with the Moorish corsairs laid waste the rising settlements. At present gastric and typhoid fevers are endemic, although their virulence is much diminished by the topographic distribution of the towns and villages. Trade has given rise to few large centres of population, the houses mostly following in long straggling lines around the island, and thus enjoying the invigorating influence of the sea breezes. The diet also is at once simple and strengthening, large quantities of maize bread being consumed with all the other aliments, such as vegetables, fruits, and fish. "To be well fed, take all with bread," says the local proverb.

Although very fertile, and in all the islands well tilled to a height of over 1,600 feet, the land no longer suffices for the support of the ever-growing population. This result must be mainly attributed to the distribution of the landed estates. At the time of Hunt's visit in 1840 the number of proprietors represented only a thirty-sixth of the adult inhabitants, and although primogeniture has been abolished, the old feudal division has been largely maintained. San-Miguel still belongs almost entirely to about a dozen large landowners, as at the time of the first settlement. Several domains comprise a broad belt stretching from the rock-bound coast to the cones of the volcanoes. No doubt tenants have the traditional right of remaining on the cultivated land and receiving compensation for improvements; but the rack rents exacted by the landlords represent a large share, sometimes fully one-half, of the whole produce. Small proprietors are far from numerous, and at a change of hands the real value of their holdings is greatly reduced by the fees for sale and the other legal dues by which these small estates are encumbered. Thus the owner too often becomes dispossessed in favour of the rapacious lawyer, or of some wealthier emigrant returning from Brazil, who is willing to pay a fictitious value for the property. Hence the junior members in all families swarm abroad, the number of yearly emigrants varying from two thousand to three thousand, while the annual amount remitted to their relatives is estimated at forty thousand pounds. Shipping companies have been formed to take advantage of this movement, which is directed towards Brazil, the United States, the Portuguese African possessions, and recently also to the Sandwich Islands. In 1882 alone, over two thousand from the single district of Ponta-Delgada migrated to Hawaii, where in 1884 there were reckoned 9,377 of Portuguese race, mostly Azorians. Young men escape from the archipelago especially to avoid military service and the wearisome life in some Portuguese fortress. A recent law obliging them to deposit a sufficient sum to provide a substitute is frequently evaded.

Agriculture is the great industry of the Azorians, whose implements are still of a very primitive type, the harrows tipped with fragments of lava dating, in fact, from the stone age. But so fertile is the land, that even so it yields twenty-fold the corn committed to the earth. Unlike other great feudatories, the proprietors are seldom absentees, residing constantly on their estates, and

industriously reclaiming every inch of arable land. Wheat, which degenerates in San-Miguel, thrives well in Santa-Maria. Beans and haricots are also cultivated, besides sweet potatoes and yams, which serve not only as food, but also for distilling alcohol. In many places the rotation of crops has been introduced in such a way as to yield two harvests in the year; nevertheless, the produce is generally inferior to that of the mainland and of the other Atlantic archipelagoes.

The vine, in recent years mostly destroyed by oïdium, yielded to the middle of this century an indifferent but abundant white wine. It is now replaced by orange-groves, especially in San-Miguel, which in a single season has exported to London as many as two hundred and fifty million "Saint Michaels," valued at nearly £120,000. But this plant also has begun to "weep," stricken by *lagrima* and other diseases, which have reduced the export to one-fourth. A fibre is extracted from the *phormium tenax*, or New Zealand flax, introduced at an unknown date; pineapples of fine flavour are raised under glass, and since 1878 attention has been paid to the tea industry. In 1885 a single plantation contained as many as twenty-seven thousand shrubs. But the staple agricultural product is maize, of which a considerable quantity is exported, notwithstanding the enormous local consumption. The peasant class itself is still in a miserable condition, wages ranging from about eightpence to fifteen pence, and during harvest-time rising to half a crown.

Formerly the islanders wore clothes made almost exclusively of indigenous fabrics; but the cheap foreign cotton and woollen goods have nearly extinguished the native looms. The only local industries, properly so called, are tanneries, flour-mills, and cheese-making, all not occupied with agriculture being engaged in trade. The foreign exchanges are steadily advancing, having increased tenfold between 1830 and 1880, although since then a considerable decrease has been caused by the ravages of the various diseases that have attacked the orange-groves.

#### TOPOGRAPHY.

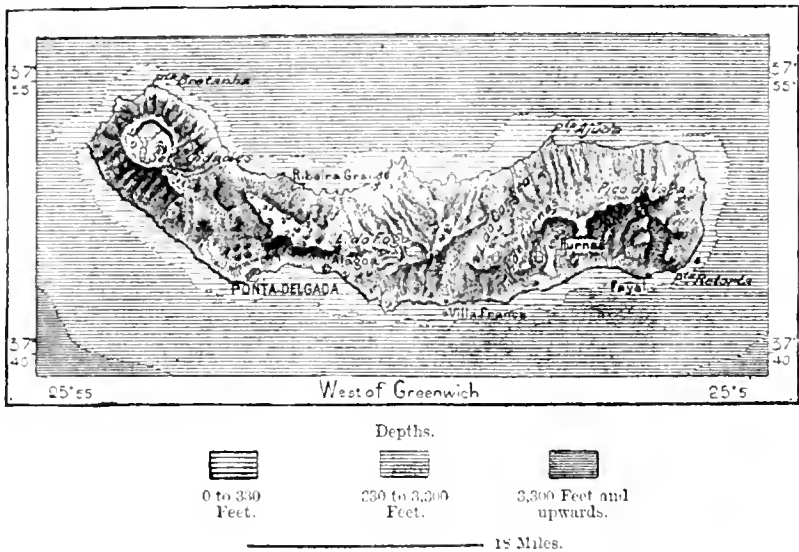
*Santa Maria*, which lies nearest to Portugal and Madeira, is one of the smallest and least populous members of the archipelago. But it appears to have formerly been much larger, for its marine pedestal, eaten away by the surf caused by fierce western gales, extends for a considerable distance to the north-west of the island. The *Formigas* and *Formigore* reefs, "pigmy ants encircling a giant ant," which lie some 24 miles to the north-east, are also mere fragments of an islet about six miles long. But while one side of the Santa-Maria bank has been eroded by the waves, the island has elsewhere been enlarged by a slow movement of upheaval. The traces of old beaches are clearly visible round the coast to a height of about 300 feet. This western section of the archipelago appears to have been long exempt from eruptions and underground disturbances. No recent scoriæ occur, and the old lavas have either been weathered by atmospheric action or clothed with humus and verdure.

Santa-Maria is distinguished from all the other islands by the presence of some limestone beds deposited in the shallow waters before the upheaval of the corals. These deposits, which date from the close of the Miocene epoch, are utilised by the lime-burners, who export the product of the kilns to Ponta-Delgada, in San-Miguel. The red argillaceous clays are also used for the manufacture of pozzolana.

*Villa do Porto*, capital of Santa-Maria, scarcely deserves its name, which means the "harbour town." Its creek, a mere fissure in the south coast, is exposed to the west and south winds, and the anchorage is so bad that the shipping has often to keep to the roadstead, ready to take to the high seas at the approach of danger. Few of the islands suffered more than Santa-Maria from the raids of the French

Fig. 13.—SAN-MIGUEL.

Scale 1 : 150,000.



and Algerian corsairs in the sixteenth century. In dry seasons it is threatened with scarcity, and at times with famine.

*San-Miguel* is the largest and by far the most important island in the archipelago, containing nearly one-half of the entire population. It consists of two really distinct islands, the channel between which has been filled up by a series of eruptions. This intervening space rises above the rocky plain formed by the lava-streams flowing from the two original islands. It is studded by a multitude of volcanic cones, whose outlines present from a distance the appearance of a line of giant molehills. The volcanic ashes mingled with the *débris* of these lavas, and modified by the action of the rains, have developed an extremely fertile vegetable humus, constituting the chief agricultural district in the island. Here, also, is concentrated the great majority of the population.

The eastern part of San-Miguel, resembling Santa-Maria in the aspect of its ravined slopes and weathered lavas, is dominated by the Pico da Vara, highest

summit in the island. This old crater has been quiescent since the arrival of the first colonists, and the Africans left on the island in 1444 took refuge on its wooded slopes during the violent earthquakes which wasted the western districts. West of the Pico da Vara the irregular chain is broken at intervals by plains in the form of cirques, one of which opening southwards takes the name of the *Val*

Fig. 14.—VAL DAS FURNAS.

Scale 1 : 120,000.

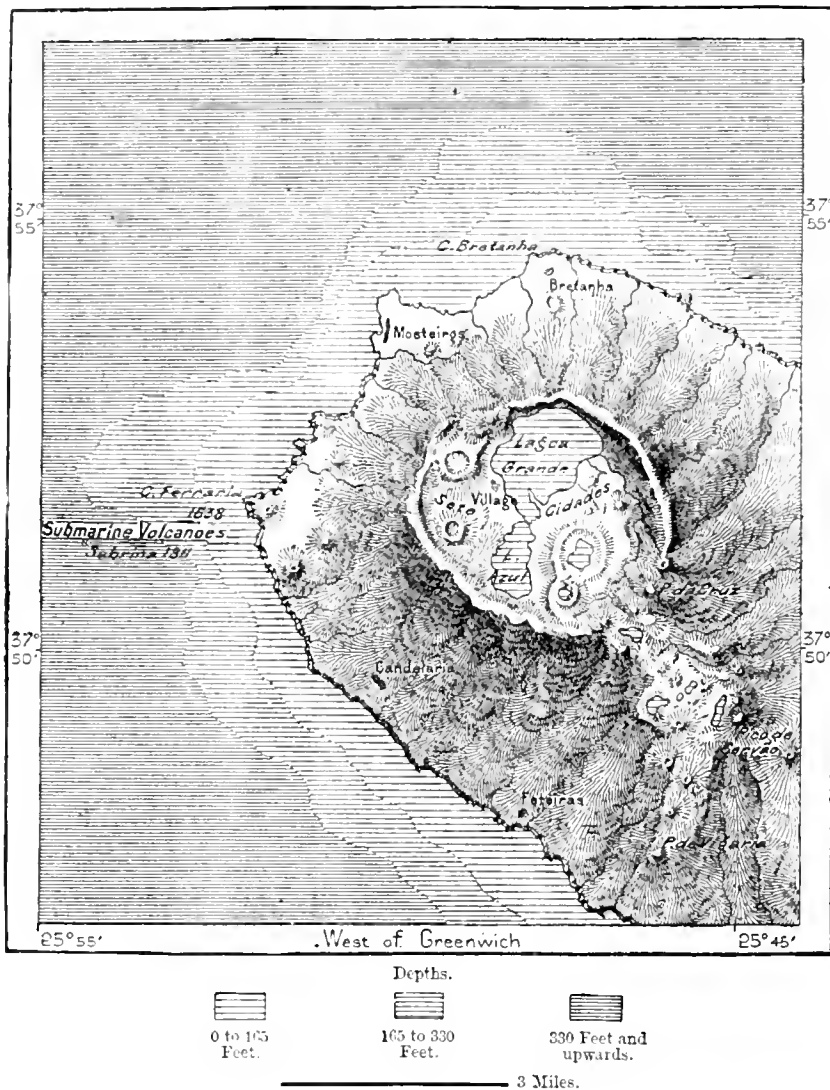


*das Furnas*, or "Valley of the Furnaces." It is traversed by the Ribeira Quente, or "Burning River," which reaches the sea through a narrow valley used for raising early fruits and vegetables. For the space of about the fourth of a mile, in all directions the ground is pierced by innumerable openings, throwing up jets of water and vapour. Some of these apertures have scarcely the diameter of a

needle, and take the name of *olhos*, or "eyes;" but the most copious spring is the *caldreira*, or "cauldron," which ejects with a rumbling noise a liquid stream to a height of over three feet above the level of the basin. From the encircling rocks, worn and bleached by the acids, there escape some boiling rivulets, and even in the bed of the main stream hot springs are revealed by the bubbles and vapours

Fig. 15.—SETE CIDADES.

Scale 1 : 162 000.



rising above the surface. The temperature of the waters, some of which are utilised for hot baths, varies considerably, ranging from 70° F. to 208° F., which is nearly that of boiling water. The "furnaces," which differ also in their mineral properties, have undergone no change for the last three hundred years, beyond the gradual deposit of thick silicious layers in which plants are petrified. Large trees have thus become rapidly fossilised.





LAKE OF THE SETE CITADES.



Thermal springs and vapour jets are numerous in other parts of the island, where they are disposed in a line running from north-west to south-east, that is, in the same direction as the axis of the archipelago itself. San-Miguel also abounds most in lakes, formerly craters which vomited burning scoriae, and are now filled with rain water. One of these occupies an oval depression immediately to the west of the Val das Furnas, while a neighbouring basin, 3 miles round, with a depth of over 100 feet, was completely filled with ashes during the eruption of 1563, and is now known as the *Lagoa Secca*, or "Dry Lake." Six miles farther on is the lagoon *Do Congro*, filling a deep crater, with steep walls rising 100 feet above the water. Beyond it is the alpine *Lagoa do Fogo*, or "Fiery Lake," which has replaced a burning crater opened in 1563. On this occasion the *Volcno*, or "Volcano," a lofty mountain so called in a pre-eminent sense, disappeared altogether, being transformed to a mass of ashes and punice, which were strewn over the island and for hundreds of miles over the surrounding ocean. Some of the volcanic dust was even said to have been wafted by the wind as far as Portugal.

The western extremity of San-Miguel is almost entirely occupied by a circular crater, with a surprisingly regular outer rim 9 miles in circumference, and cut up at intervals by the action of the rains. The vast amphitheatre is dominated by several volcanoes, culminating south-eastwards in the Pico da Cruz, 2,830 feet high. The sheet of water flooding the great crater lies at an altitude of little over 1,000 feet above the sea, and according to tradition this chasm was opened in 1444, the very year when the first settlers were landed on the island by Cabral. This statement, however, has not been confirmed by a geological study of the crater, which has also received from the popular fancy the name of the *Caldreira das Sete Cidades*, or "Cauldron of the Seven Cities." Here were doubtless supposed to have been submerged the "Seven Cities" of Antilia, founded by the seven legendary bishops said to have fled from Portugal at the time of the Moorish invasion. The lake, which has an extreme depth of over 350 feet, is disposed in two distinct basins, the *Lagoa Grande* in the north, separated by a scarcely emerged tongue of land from the southern *Lagoa Azul*, or "Azure Lake." Each of the two volcanoes lying a little farther south has also flooded craters.

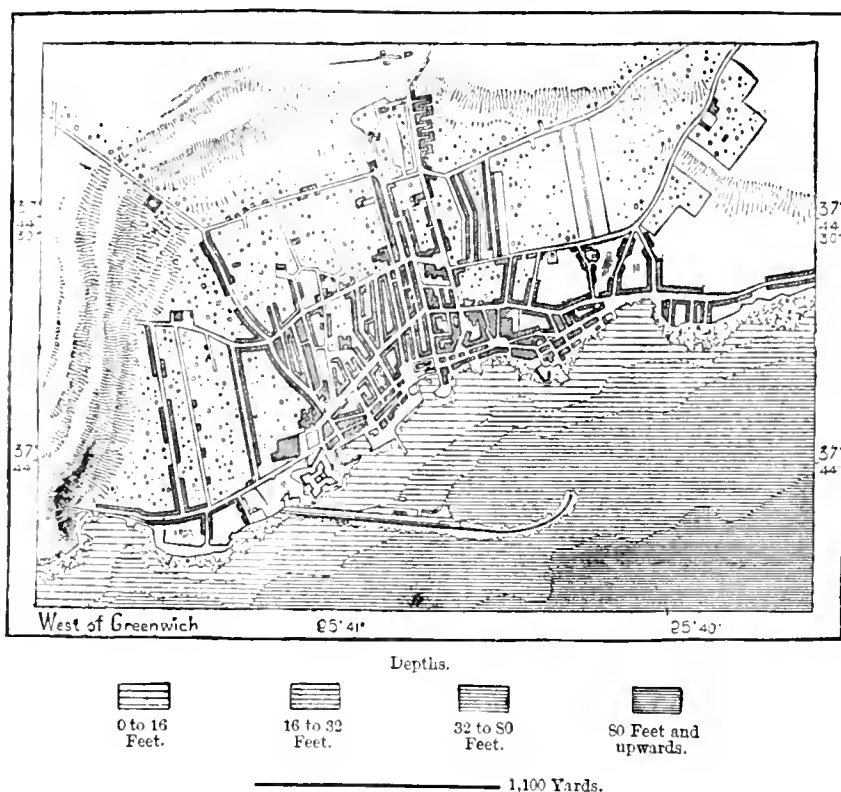
Within the historic period some submarine volcanoes have risen close to the coast in the vicinity of the Sete Cidades. The regular crater facing the port of Villafranca, on the south side of the island, is of unknown date. The first eruption witnessed in the open sea occurred in 1638, when a column of ashes was thrown up to the south-west of Cape Ferraria, a blackish cone at the same time slowly rising above the water; but in a few months the new island was swept away by the winter storms. In 1811, however, another appeared to the south-west of the same spot. This was the famous *Sabrina*, so named from the British frigate which witnessed the eruption, during which jets of scoriae and ashes rose at intervals to a height of over 680 feet above the cliffs of the neighbouring coast. A cloud of vapours revolved round about this column of *debris* like a vast wheel, and on the fourth day the first dark outline of Sabrina rose to the surface. In three

hours it was already 20 feet high, with a round crater 1,500 feet in circumference. Sixteen days after the beginning of the eruption the cone acquired its greatest dimensions—250 feet high and  $1\frac{1}{4}$  mile round; but consisting entirely of loose ashes and scorie, it could not long resist the action of the waves, and gradually disappeared to a depth of about 100 feet below the surface.

The earliest Portuguese settlement on the south coast of San-Miguel takes the simple name of *Povoacem*. *Villafranca*, which succeeded it as the capital, lies also on the south side, where the roadstead is sheltered from the west winds by the volcanic islet and the flooded isthmus connecting it with the shore. Although

Fig. 16.—PONTA-DELGADA.

Scale 1 : 30,000.



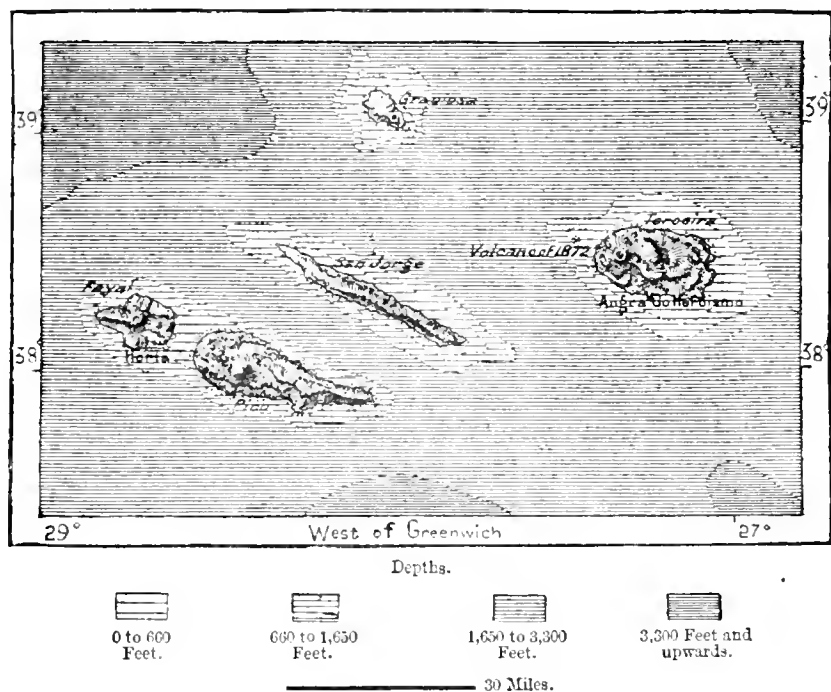
destroyed by an eruption in 1522, when all its five thousand inhabitants perished, *Villafranca* has again become a populous place, carrying on a direct trade with England. But the capital has been removed farther west to *Ponta-Delgada*, which ranks for population as the fourth city in Portuguese territory. The formerly exposed anchorage is now protected by a pier nearly 4,000 feet long, which was begun in 1860, and which completely shelters from all winds a deep harbour large enough to accommodate a hundred vessels. More than half of the foreign trade of the Azores is carried on through this port, which is connected by good roads with the northern slope of the island. Here are situated *Ribeira-Grande*,

second town in San-Miguel, and *Capellas*, the most frequented summer retreat of the wealthy islanders.

The waters separating San-Miguel from Tereceira were the scene of violent submarine disturbances in 1720, when a temporary volcano rose for a short time above the surface. In 1867 the convulsions were renewed near the village of *Serreta*, at the western extremity of Tereceira, when another heap of scoria was formed, without, however, reaching the level of the sea. On this occasion the ground was in a constant state of agitation for months together, as many as fifty shocks occurring more than once in a single day, some strong enough to overthrow the houses. The eruption which gave birth to the sub-marine volcano lasted seven

Fig. 17.—CENTRAL ISLANDS OF THE ARCHIPELAGO.

Scale 1 : 1,520,000.



days, during which the surrounding waters were coloured yellow, green, and red by the ferruginous salts in solution.

Like San-Miguel, the oval island of Tereceira, or "the Third," consists of two sections, the central and eastern, with its *Caldeirã*, or "Kettle," and the western with its *Caldeira*, or "Boiler," of Santa-Barbara, belonging to different geological epochs. The Kettle is a cirque some 6 miles in circumference, encircled by volcanic cones and entirely overgrown with a thicket of brushwood. From its rim a view is commanded of all the central islands in the archipelago, and the faint outlines of San-Miguel, away to the south-east, may even be discerned in fine weather. The last eruption in the interior of Tereceira occurred in 1761, the red lava streams then ejected being still nearly destitute of vegetation. A little gas

and vapour at a temperature of 194° F. still escapes from the crater, while round about the solfataras are deposited crystals of sulphur, whence this central part of the island takes the name of *Furnas d'Enxofre*, or "Sulphur Furnaces."

Off the south coast of Terceira lie the *Cabras* rocks, representing an old submarine cone, now separated by the waves into two distinct islets. Attached to the same coast is the *Morro do Brazil*, another submarine volcano lying west of the port of *Angra*. A fort erected on its slope defends Angra, chief town of Terceira, formerly official capital of the Azores, and still residence of the military commander. Although smaller than Ponta-Delgada, the "City of Churches," as it is called from the number of its sacred edifices, it presents a more monumental appearance. In the local records it bears the pompous title of "*Angra do Heroismo*," in memory of the successful resistance it opposed to the troops of Don Miguel in 1829.

*Graciosa*, the "Delightful," no longer deserves this name, since its former vesture of arborescent vegetation has been replaced by more economic growths. Besides agriculture, some industries are carried on in its two towns of *Santa-Cruz* and *Praia*, both situated on the north coast. Since the arrival of the Portuguese there have been no eruptions, and seldom any severe earthquakes in this island. The only present indications of volcanic activity are a thermal and mineral spring flowing seawards, and some carbonic acid and other vapours emitted from a "cauldron" in the eastern district.

*San-Jorge*, central point of the middle group and of the whole archipelago, differs from the other islands in its long narrow form, disposed exactly in the direction of the general Azorian axis, and traversed for some 30 miles by a ridge destitute of deep "cauldrons," and even of craters, properly so called. Although quiescent in its eastern section, which was the first to be occupied by Jobst van Huarter's Flemish colonists, San-Jorge is still frequently disturbed at the other end. Here is *Vellas*, the capital, sheltered by a headland from the west winds. Submarine volcanoes are said to have made their appearance near the western extremity in 1691, 1720, and 1757; in the latter year as many as eighteen ephemeral islets, all soon swept away by the waves. Formerly San-Jorge produced the best wine in the archipelago, but is at present chiefly occupied with stock-breeding.

South of San-Jorge the archipelago culminates in the lofty summit of *Pico*, or the "Peak," in a pre-eminent sense, which towers to a height of 7,800 feet, and which, although developing at its base a circuit of 70 miles, has never been known by any more definite name. On both sides of the island the slopes rise gradually towards the apex, but more rapidly on the west side, which, seen from below, presents the appearance of almost vertical walls. During clear weather the summit is seen from a distance to terminate in a crater encircled by more recent cones, formed by successive eruptions. But this summit is even more rarely visible than that of Teneriffe, the mountain being wrapped in clouds and fogs for months together, while the snow, sheltered by the vapours from the solar rays, remains even during midsummer in the upper crevasses.

Since the time of the Portuguese occupation violent eruptions have occurred, but none in the terminal crater itself, which emits nothing but a light column of vapour, mingled with carbonic acid and sulphuretted hydrogen. The eruption of 1572 appears to have been specially distinguished by the intensity of its fires, lighting up the whole archipelago, changing night into day, and illuminating the waters of San-Miguel at a distance of 150 miles. Like Terceira and Graciosa, Pico consists mainly of lavas which were ejected in a perfectly fluid state, and consequently spread in serpentine windings over the slopes. Around nearly the whole island, as round Etna in Sicily, the waters filter through the ashes and porous lavas, under which they develop subterranean streams, reappearing on the coast, where they are alternately exposed and covered by the tidal ebb and flow. Hence, notwithstanding the abundant rainfall, the inhabitants are obliged to husband their supplies in artificial reservoirs.

Although of much larger extent, Pico has a population very little superior to that of the neighbouring Fayal. Formerly the large landowners of this island accumulated great wealth from their extensive vineyards, especially in Pico, which in 1852 yielded over 2,860,000 gallons of a vintage resembling Madeira; but in 1853 the crop was reduced by the ravages of oïdium to one-fifth, and a few years later the vines had only the value of so much fuel. Since then a few vineyards have been restored, and attention has been paid to the cultivation of other fruits and to grazing on the upland pastures. But the produce of Pico, and consequently the trade of Fayal, have been much reduced, so that the impoverished inhabitants have largely contributed to swell the tide of emigration. *Lagens*, capital of Pico, is a wretched village near the south coast, on the banks of a lagoon which it is proposed to convert into a harbour.

Geographically, *Fayal* may be regarded as a dependency of Pico, from which it is separated by a channel less than 300 feet in depth. The spurious beeches, whence Fayal, or the "Beech Grove," takes its name, have almost disappeared, being now found only in a "cauldron" in the centre of the island 1,340 feet deep and nearly 4 miles round, and flooded with a small lake. Of all the Azores, Fayal is the best cultivated, and yields the finest fruits, such as oranges, apricots, and bananas. The industrious natives manufacture some woven fabrics, and the women prepare a thousand fancy objects for strangers, amongst which is a beautiful lace made with agave fibre.

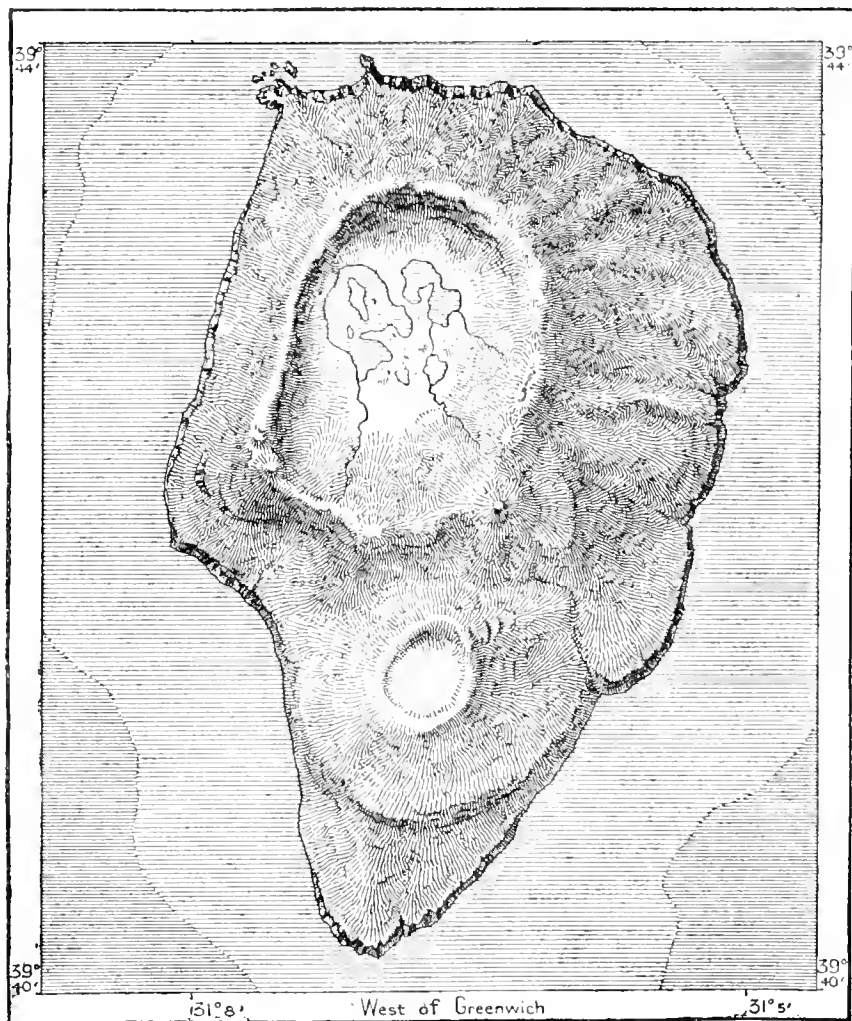
*Horta*, capital of Fayal, occupies a pleasant position over against Pico at the entrance of the fertile Vale of Flanders, so named from its first settlers, amongst whom was Martin Beham, the famous Nürnberg cosmographer. No other district in the archipelago surpasses that of Horta for the variety of the indigenous and exotic flora and the beauty of its shady groves, in which are intermingled the European, American, and Australian species. Owing to the abundance of its vegetable and other produce, Horta has become the chief port of call of the American whalers frequenting these waters. Its roadstead also is the best sheltered in the whole archipelago, being protected from the dangerous west winds by the surrounding heights, from those of the east and north-east by Pico and

San-Jorge, and from the south by the Quemado and Agnia, or Guia, rocks. A solidly constructed breakwater, running from Quemado to the south of the anchorage, encloses a safe harbour of about 30 acres in extent.

*Flores* and *Corvo*, separated from the other Azores by a space of about 150

Fig. 18.—Corvo.

Scale 1 : 75,000.



Depths.

0 to 330  
Feet.

330 Feet and  
upwards.

3,300 Yards.

miles, and from each other by a strait 11 miles wide and over 830 fathoms deep, form a little group apart, communicating seldom with the eastern groups, except for administrative purposes with Horta, capital of the province of the Azores.



Nevertheless, the natives are daring mariners, trading directly with Portugal and Brazil, and often supplying fresh hands to the American whalers. The cattle of Corvo, descended from the Algarvian breed, are probably the smallest in the world, the largest scarcely exceeding 36 inches, but always well-proportioned. The two islands have a typical Azorian climate, mild, moist, and breezy, with a heavier rainfall than elsewhere, more sudden gales, more verdant perennial vegetation. Although disafforested, Flores still remains the island of "Flowers," with a great variety of vegetable species and wonderfully fertile slopes and dells. All the slopes of the hills in both islands are scored by deep valleys radiating regularly from the centre to the periphery. This formation is due to the great age of the lavas, which during the course of countless centuries have been cut up into broad valleys, formerly densely covered with forest growths, now occupied by rich cultivated tracts.

No eruptions, or even any violent earthquakes, have been recorded either in Flores or Corvo throughout the historic period. The craters have ceased to emit any vapours, and are now partly flooded with lakelets, partly clothed with brush-wood and herbage. The great cauldron occupying about half of Corvo, is the most regular in the whole archipelago, forming an oval cirque over 4 miles round, and intersected by numerous gorges, some converging towards the inner lake, others diverging seawards.

#### ADMINISTRATION.

The Azores, attached administratively to Portugal as an integral part of the kingdom, comprise three districts subdivided into twenty-two *concelhos* and a hundred and twenty-five communes. Each district is administered by an elective colonial council, and by a special civil government depending directly on the metropolis. The Azores send eight deputies to the Portuguese chambers, four named by Ponta-Delgada, two by each of the other districts.

A tabulated list of the islands, with their districts, chief towns, and populations, will be found in the Appendix.

#### ARCHIPELAGO OF MADEIRA.

The group of Atlantic islands and islets lying 500 miles to the south-east of Santa-Maria in the Azores, occupies a very insignificant space amid the surrounding waters. But although Madeira, the chief island, with all its little dependencies, has a total area of less than 400 square miles, so densely is it peopled that it contains a population relatively four times greater than that of the mother-country, Portugal.

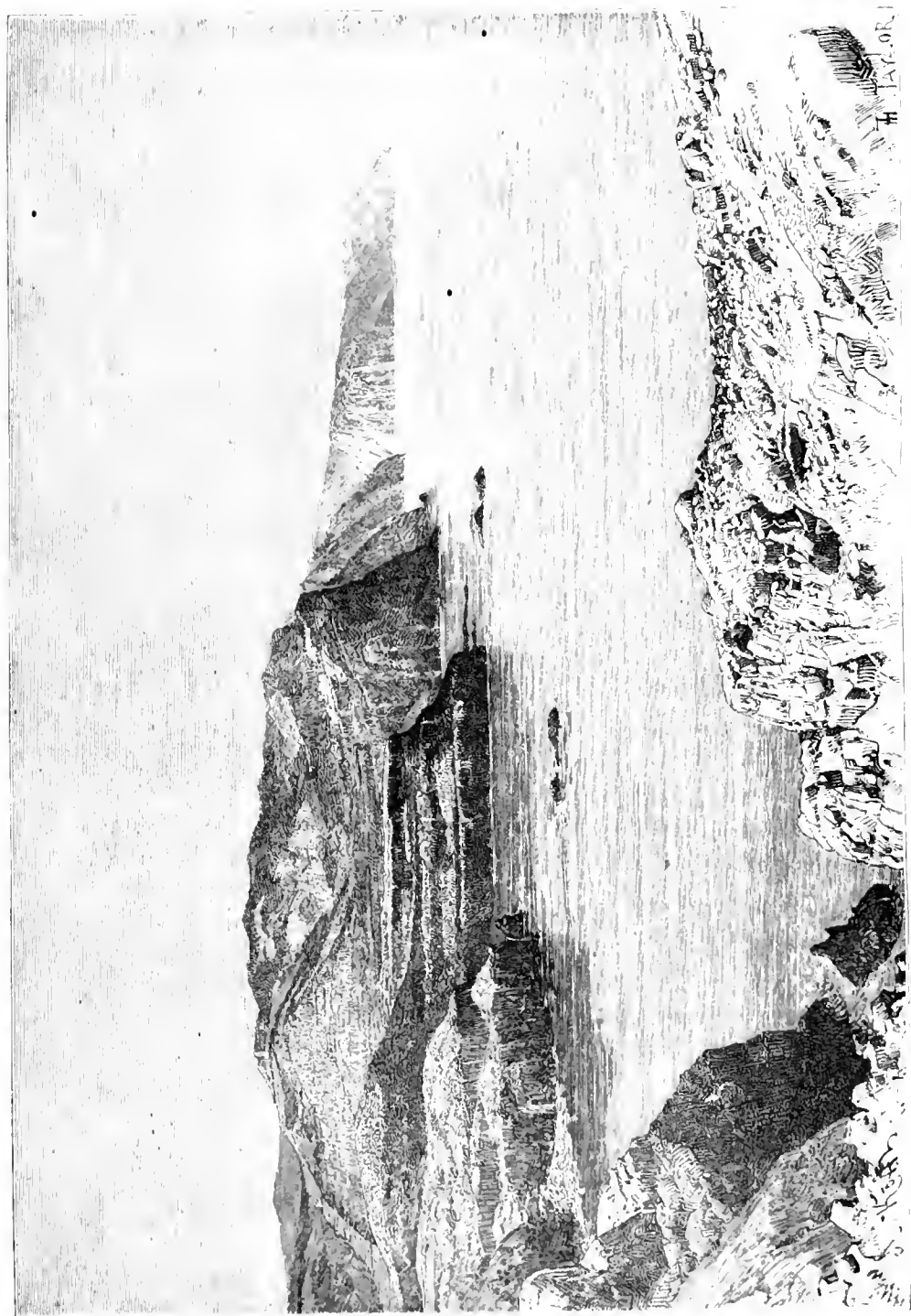
Less European in its climate than the Azores, Madeira lies, nevertheless, much nearer to the mainland, the distance from Funchal to Sagres not exceeding 550 miles, or two days of steam navigation. The African coast is still nearer, Cape Cantin, in Morocco, lying 420 miles due east; while Palma and Teneriffe, in the Canary group, are distant less than 270 miles to the south. Madeira is entirely

encircled by deep waters, in which the sounding-line plunges 2,200 fathoms without touching the bed of the sea. But in the direction of Europe there occur several banks and plateaux, such as that of Gettysburg, about 150 miles from the nearest Portuguese headland, flooded only by 200 feet of water. This bank of bright pink coral forms the crest of an extensive submerged land, which ramifies on the one hand towards Madeira, on the other towards the Azores through the Josephine bank lying under 85 fathoms of water.

In the early records of doubtful geographical discovery Madeira flits like a shadow before the puzzled gaze of the observer. Is it to be identified with the Jeziret-el-Ghanam, discovered by the Arab navigators before the time of Edrisi, that is, before the twelfth century; and is Porto-Santo the Jeziret-el-Tiûr, or "Isle of Birds" of these explorers? On the map of the brothers Pizzigani, dated 1367, and several other more recent Italian charts, the Madeira group is indicated as the archipelago of Saint Brendan's Fortunate Islands. But so early as 1351 Madeira is already mentioned in a Medicean document by the name it still bears, the "Isle of Wood" (in Italian *legname*, the equivalent of the Portuguese *madeira*, "wood"), the other islets of the group being also indicated by their present appellations. Nevertheless, Madeira was again forgotten by the western seafarers, or at least the vague memory of its existence faded away into a popular legend. "It seems," says one author, "that such a delightful island could only have been discovered by love;" and thus arose, embellished by a Portuguese writer, the story of the two English lovers who fled from Bristol in the reign of Edward III., and were driven by a storm to the coast of Madeira.

But however this be, the definite registration of the archipelago in the records of geographical discovery dates only from the year 1418 or 1419. According to Barros, the cavaliers Gonçavez Zareo and Tristam Vaz Teixeyra, "still unaccustomed to sail on the high seas," were driven by the tempest far from the African shore, which they were coasting in the direction of Bojador, and landed at Porto-Santo, the "Sacred Port," or haven of refuge. On their return to Portugal they received from Don Henri a commission to colonise the new island, and they proceeded forthwith to explore a dark spot visible from Porto-Santo on the south-western horizon. Madeira was at last discovered. Contemporary evidence leaves no room to doubt that the Portuguese navigators really rediscovered the archipelago. At the same time it cannot be pretended that the islands were previously unknown to Prince Henry, for the very names given them by the Portuguese were identified with those already assigned to them on the Italian maps.

Madeira, chief member of the group, so far exceeds all the others in extent, population, and resources, that in ordinary language no account is taken of these minor satellites, and Madeira is spoken of as if it were a solitary island in the waste of waters. Disposed in the direction from east to west, it has an extreme length of over 35 miles, and a width of 14 miles at its widest part, between the northern and southern headlands of San-Jorge and Santa-Cruz, with a superficial area of about 280 square miles. Madeira is entirely occupied by igneous rocks



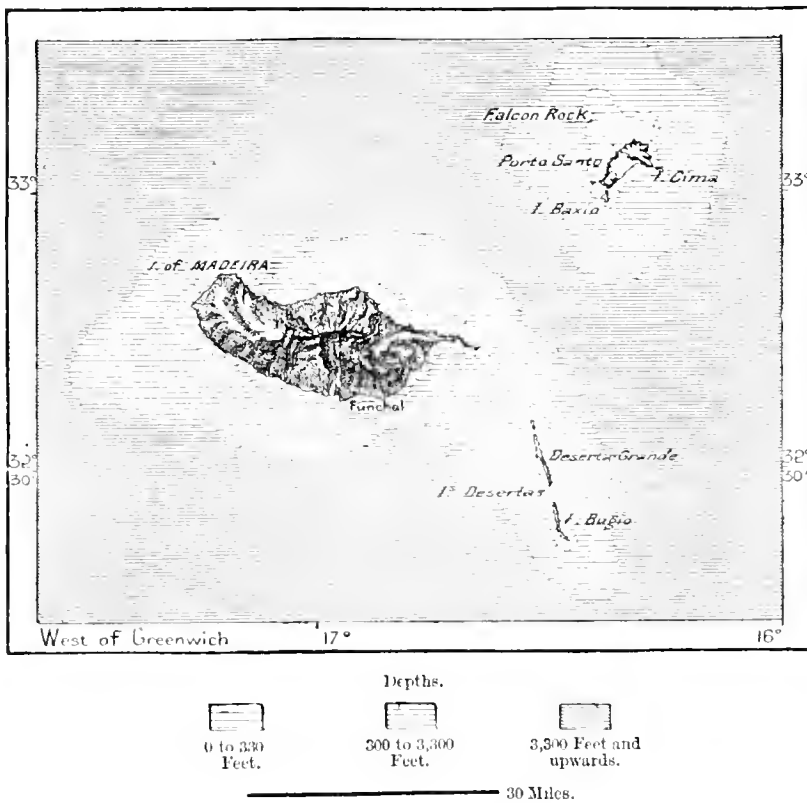
MADEIRA—VIEW TAKEN ON THE NORTH COAST.



ejected during successive marine eruptions, and round the periphery furrowed by deep valleys, which bear witness to the great antiquity of the lavas. The basalts and trachytes resting on a conglomerate of volcanic débris, called *rinoso* from its colour, and traversed in every direction by dykes of injected matter, have been eroded by the rains and torrents to a depth of many hundred feet below the original surface. No distinct craters are any longer visible; the escarpments have lost their sharp scoriae; all rugosities and rocky points have been rounded or covered with vegetable humus. Hence, despite the chasms and their steep walls, the whole surface has assumed a soft and charming aspect, even where

Fig. 19.—ARCHIPELAGO OF MADEIRA.

Scale 1 : 1,500,000.



the rocks have not been clothed with the verdure of brushwood or forest growths. There are no indications of any surviving volcanic life, and earthquakes are of rare occurrence.

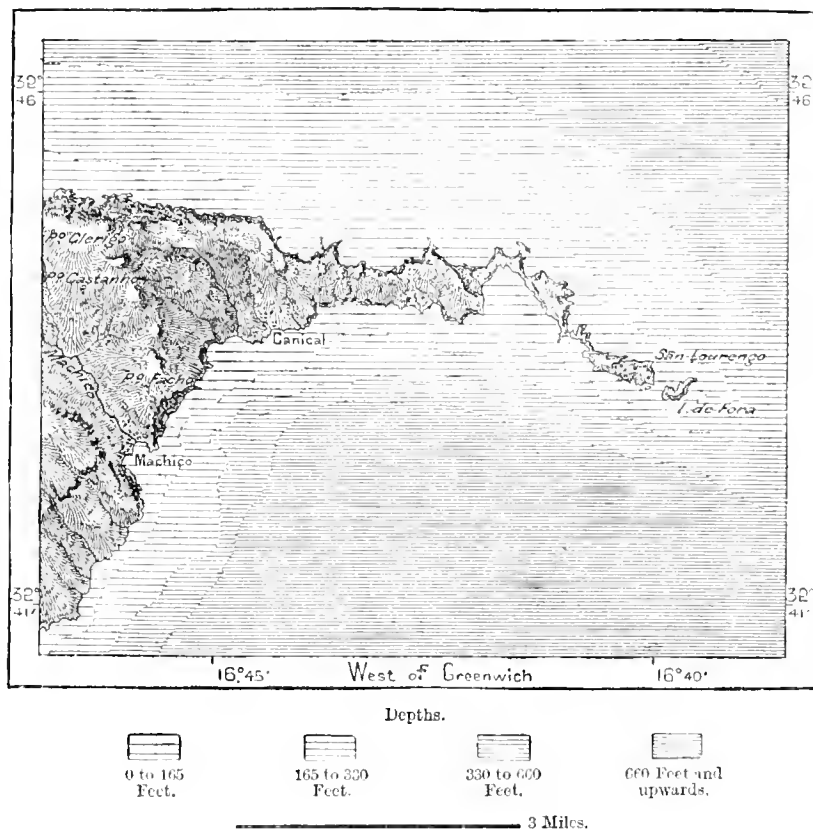
The island is traversed from end to end by a high saddle-back, broadening here and there into plateaux, and again contracting to a narrow ridge. Lateral spurs branching from the main range, and separated from each other by profound gorges, terminate on the coast in abrupt headlands, columnar basalt cliffs, and many-coloured tufas, whose brown, red, and yellow tints produce a very vivid effect. Cape Giram, one of these headlands, about the middle of the south coast,

falls little short of 2,500 feet above the sea. But the general axis lies much nearer the north side, where the slope is consequently far more abrupt. Here also the general aspect of nature is wilder, the headlands more rugged, the coast-line more sharply outlined, without, however, anywhere developing natural havens. The whole island presents no safe refuge where shipping may safely anchor at all times.

According to Oswald Heer, Madeira emerged probably during the Quaternary epoch, to which age seem to belong the beds of fossil plants discovered on the

Fig. 20.—EASTERN PENINSULA OF MADEIRA.

Scale 1 : 135,000



north side, and the prodigious masses of land shells forming steep ramparts about Cape Sam-Lourenço at the eastern extremity of the island. Marine fossils found 1,270 feet above sea-level date from the Tertiary period, and some facts are mentioned by Walker which show that the sea has receded in the Funchal district, and which seem to point at a recent upheaval of the land.

According to Ziegler, Madeira, regarded as a horizontal mass, has a mean altitude of 2,700 feet. But in its western section the central chain, here very irregular, rises to a height of over 4,000 feet. It then expands into an extensive tableland about 10 miles round, with precipitous escarpments. This is the Paúl

da Serra, or "Mountain Morass," whose depressions, here and there filled with peat, have somewhat the aspect of the English moors. East of this district the main range is dominated by the *Pic Ruivo*, or Red Peak, 5,870 feet, culminating point of the whole island, which overlooks the *Carral das Freiras*, a vast cirque enclosed on three sides by steep walls over 1,600 feet high. Here, perhaps, was the old central crater, now enlarged and partly effaced by the erosion of running waters. A dismantled lava wall connects the *Ruivo* heights with a very irregular plateau dominating on the north the Bay of Funchal. Beyond this plateau, which still exceeds 3,000 feet, the central range falls rapidly, and the island tapers to the eastern peninsula, which, with its terminal islets, presents the best anchorage for shipping. The little haven of Machico, at the neck of this peninsula, is the spot where the legend places the grave of the two English lovers, said to have been the first that landed on the island, driven to its shores by a tempest.

The rugged easternmost headland of *Sam-Lourenço* is continued seawards by the islet of *Fora* and by a submarine bank, which is extended eastwards and southwards in depths of from 280 to 500 feet. Still farther to the south-east this bank rises to the surface, forming some reefs and the chain of the three *Desertas*, or "Desert" islets, which long deserved their name, but which are now inhabited by a few hundred fishermen and shepherds. In the valleys of the largest (*Grande Deserta*) some corn is also cultivated.

*Porto-Santo*, lying 90 miles to the north-east of Madeira, and separated from it by an abyss 1,200 fathoms deep, differs also in its relief. It is far less hilly, consisting of two volcanic masses with an intervening sandy plain, where are situated the chief centres of population.

#### CLIMATE.

Lying between  $32^{\circ}$  and  $33^{\circ}$  N. latitude—that is, about one-third of the distance between the equator and the Arctic pole—Madeira is renowned for its mild and delightful climate. When we speak of any pleasant spot or happy island, Madeira at once recurs to the memory. Although meteorological observations have been taken almost exclusively in the specially favoured district of Funchal, situated on the south coast and well sheltered from the north, the whole archipelago may be said to enjoy a remarkably equable climate. The mean temperature of Funchal is naturally somewhat higher than that of *Ponta-Delgada* and *Fayal* in the Azores, which lie five degrees farther north, but the annual extremes are considerably less, the heat being greater in winter and less sultry in summer. Between February, the coldest, and August, the hottest month, the difference is less than  $12^{\circ}$  F., the mean for winter being  $60^{\circ}$  F., for summer  $69^{\circ}$  F., and for the whole year  $64^{\circ}$  F.

This remarkable uniformity is due not only to the marine situation of Madeira, but also to the annual equilibrium of the winds. During the hot season, that is, from February to September, the cool north-east trade winds prevail, these being succeeded in winter by the soft western breezes. At the same time the deviations

from the normal directions are very frequent in these waters, which lie in the intermediate zone between the tropical and temperate seas. Thus the north-west currents are often deflected eastwards by the neighbourhood of the Sahara, and transformed to north and north-east winds. At times also the *leste*, as the scirocco is here called, blows from the desert towards Madeira, but it is usually very weak and seldom lasts long. The system of general currents is daily modified by the regular movement of the *terral*, or land-breeze, blowing from the uplands seawards, and of the *imbate*, or sea-breeze, blowing landwards. The change of direction often takes place before noon, so that the greatest heat prevails in the early part of the day.

The chief moisture-bearing currents are the trade winds more or less deflected and transformed to north and north-west breezes. The wettest month is December, August the driest; but no season is quite rainless, and the rainfall varies remarkably from year to year. On an average scarcely a hundred wet days are recorded at Funchal, which is about half that of the Azores, the quantity of rainfall being nearly in the same proportion in the two archipelagoes. According to Heineken, that of Funchal is about 30 inches yearly, so that the inhabitants of Madeira are obliged to husband their resources, utilising the water from the melting snows to irrigate the plains, and diverting the copious streams by means of *levados*, or aqueducts running in galleries through the hills and encircling the escarpments above the valleys. These springs are partly fed by the dense fogs which constantly settle morning and evening on the summits of the interior.

#### FLORA.

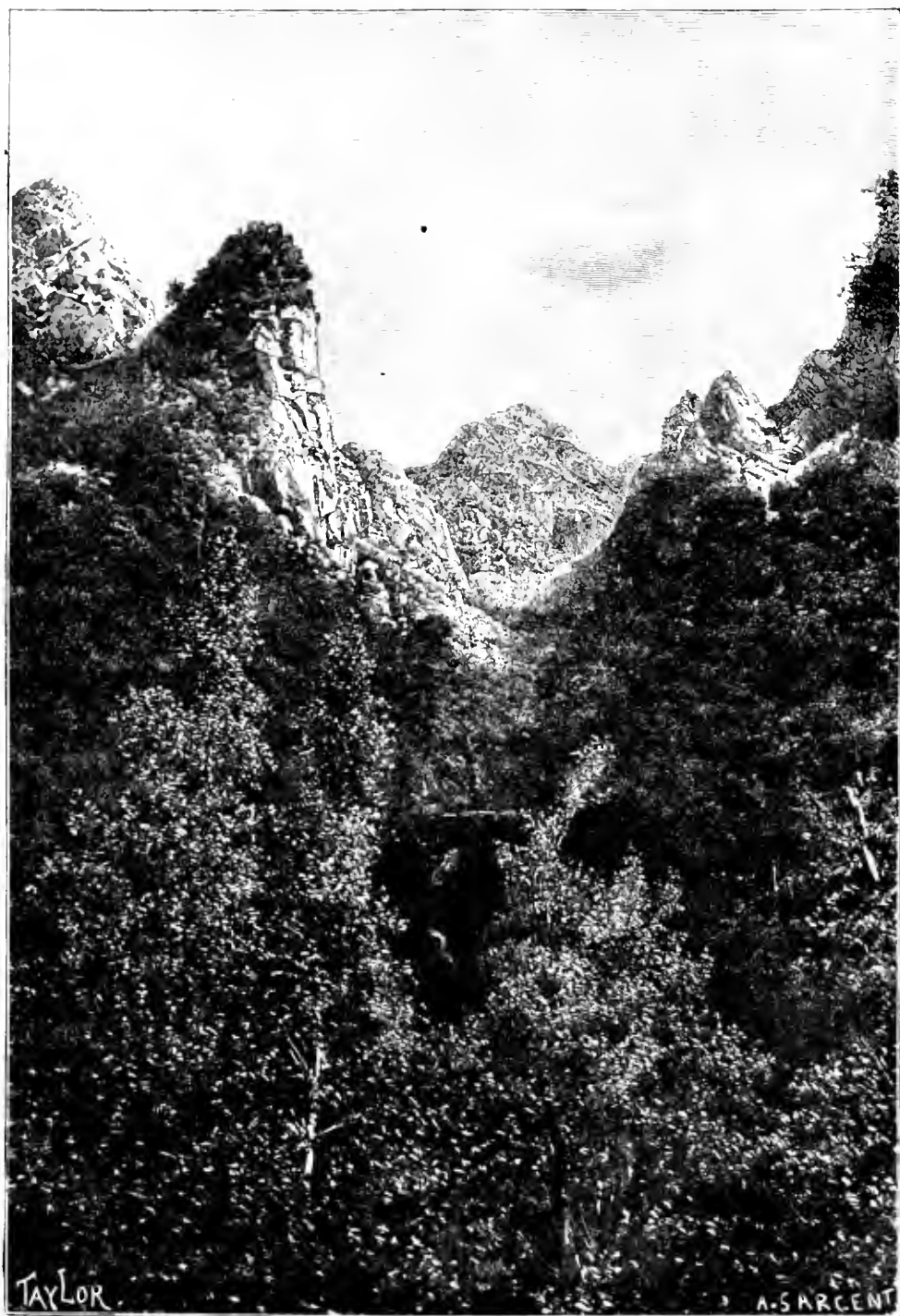
Although less extensive than the Azores, the Madeira group possesses a far more varied flora, which is due no doubt to its greater proximity to the two continents of Europe and Africa, and to its milder climate favouring the development both of tropical plants and species peculiar to the temperate zone. Madeira is like a large botanical garden, in which the two floras are intermingled. To the seven hundred species supposed to have been indigenous at the arrival of the Portuguese, there have since been added thousands introduced by man either unintentionally, or designedly for agricultural, industrial, or ornamental purposes. "The violet," says Bowditch, "grows beneath the shade of the bananas; the strawberry ripens at the foot of the mimosas; palms and conifers flourish side by side; the guava and pear-trees are met with in the same enclosures."

Thanks to a few indigenous plants, and especially to the exotics introduced since the colonisation, the present vegetation of Madeira in many respects recalls that of the tropical lands in Africa and the New World, without however losing its general European aspect. Of the 700 species, of which 527 are very probably endemic, 357 belong to Europe, while not more than 30 can be referred to the tropical flora of both hemispheres. As regards the indigenous species either peculiar to Madeira or common to some of the other Atlantic archipelagoes, Madeira shows the greatest resemblance to the Canary group. Hence Webb, Ball, and other naturalists have



given the collective designation of Macaronesia to all these islands, in memory of

Fig. 21.—MADEIRA—VIEW TAKEN FROM MOUNT SAM-JORGE.

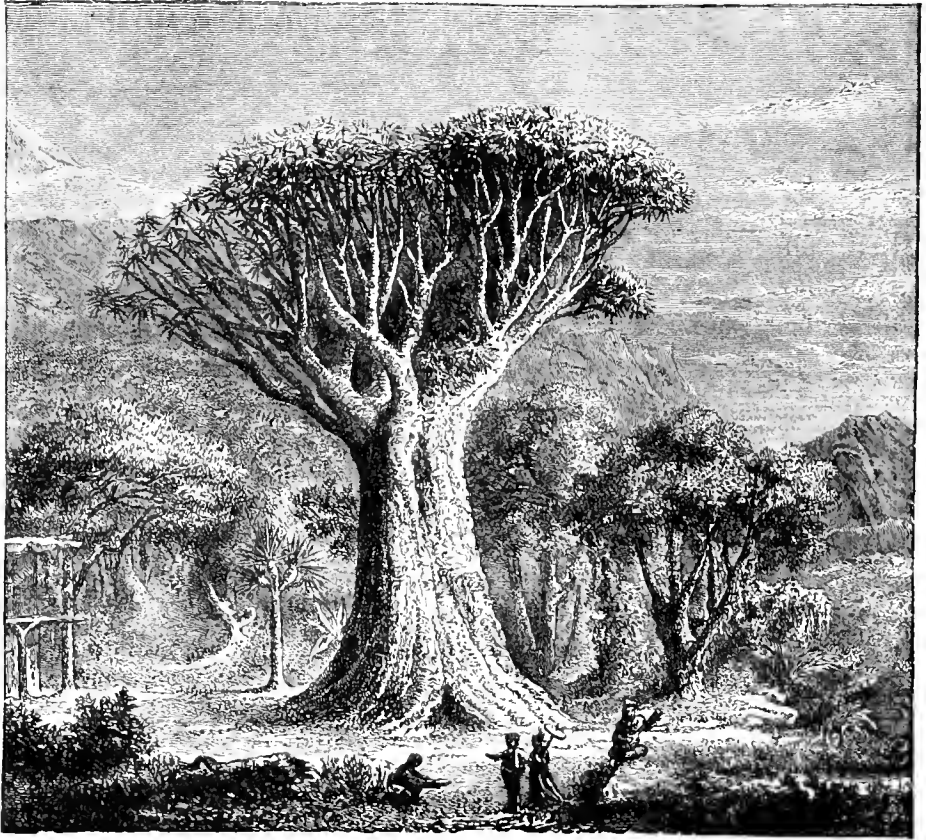


the old Greek "Isles of the Blest." Since the Tertiary epoch this flora has

undergone but slight changes, as shown by Oswald Heer's researches on the fossil plants of Mount Sam-Jorge in the north of Madeira. At that time the tree-fern, the myrtle, and allied species were as characteristic of the island as at present. An extremely remarkable botanical phenomenon is the curious contrast presented by the larger island to Porto-Santo and the Desertas, where are found African, Asiatic, and American varieties not occurring in Madeira proper.

Here great changes have taken place, thousands of new plants having been introduced, while some of the indigenous species have probably disappeared. The clearing of the forests began with the very first arrivals, and Gonçalves Zarco, to

Fig. 22.—*DRACONA* OF ICOD, IN TENERIFFE.



whom the Funchal district had been assigned as a fief, fired the woods covering the site of the future capital. The conflagration spread far and wide, threatening even to devour those by whom it had been kindled. Aloys de Cadamosto tells us that in order to escape from the flames the settlers had to take refuge in their boats or to cast themselves into the sea, where they remained without food for two days and nights, immersed to the shoulders in water. For years the fire continued to creep from hill to hill, and the new plants that sprang up no longer resembled those of the primeval forests. Porto-Santo also, formerly covered with large timber, and especially with the *draconus* used for building boats, was even more wasted than

Madeira, and brushwood has become so rare that cow-dung has now to be used for fuel. The *dracona*, a typical Macaronesian tree, has disappeared from Porto-Santo since 1828, and has also become very rare in Madeira, where it mostly dies without fructifying. In all the lowlying grounds cultivated plants have replaced the old vegetation, fields and orchards ascending as high as 2,500 feet, which is the limit for the cultivated species of the temperate zone. But the laurel and ferns reach as far as 5,350 feet, where is met the *Oreodaphne fetens*, which emits such a fetid odour that the woodman is unable to fell it all at once.

#### FAUNA.

The original fauna of the archipelago is very poor in species, being limited to a lizard, a bat, a bird, a bee, a grasshopper, a cricket, a few shells and insects, and a spider which weaves no web, but captures flies by fascinating them, as the snake does the frog. Of the 176 land-shells 38 are European; but each island has its special varieties, the Desertas 10, Porto-Santo 44, and Madeira as many as 61. All the quadrupeds have been introduced by the colonists, even the destructive rabbit and rats. The marine fauna is also mainly European, fewer species of the equatorial Atlantic having been discovered than naturalists had expected from the latitude. According to Lowe, the fishes are essentially Lusitanian, occupying an intermediate position between those of the British Isles and the Mediterranean.

#### INHABITANTS.

Like that of the Azores, the population of Madeira is of very mixed origin. Perestrello, leader of the first settlers, was an Italian; Jews and Moors have taken refuge in the island; Negroes have been imported as slaves; the English, masters of Madeira during the wars of the Empire, left behind them numerous families; and since the development of ocean steam navigation many strangers have settled here. But all these heterogeneous elements became successively absorbed in the dominating Portuguese race, and nearly all the inhabitants have black eyes, coarse dark hair, and a swarthy complexion, far too general not to be attributed in many cases to a Negro strain. Really beautiful features are seldom met, except in the rural districts, but many have a pleasant expression, due to their healthy appearance, graceful carriage, and well-proportioned figures. Like their Portuguese ancestry, the people are as a rule very courteous, of a mild, amiable, and cheerful temperament, and law-abiding.

The population increases rapidly, having risen from 16,000 in the beginning of the sixteenth century and 64,000 in 1768, to 100,000 in 1825 and over 137,000 in 1891. It has thus been more than doubled in a century, while the number of births exceeds the mortality by from 1,500 to 2,000. Yet scarcity at times causes a falling off, as between the years 1839-1847, when the potato disease, followed by much distress, reduced the population by over 10,000. The malady of the vine was still more disastrous, and the visitation of cholera in 1856 caused a total loss of about 10,000, victims partly of the epidemic, partly of want and exhaustion. Several ailments prevail which one would scarcely expect to find in such a highly

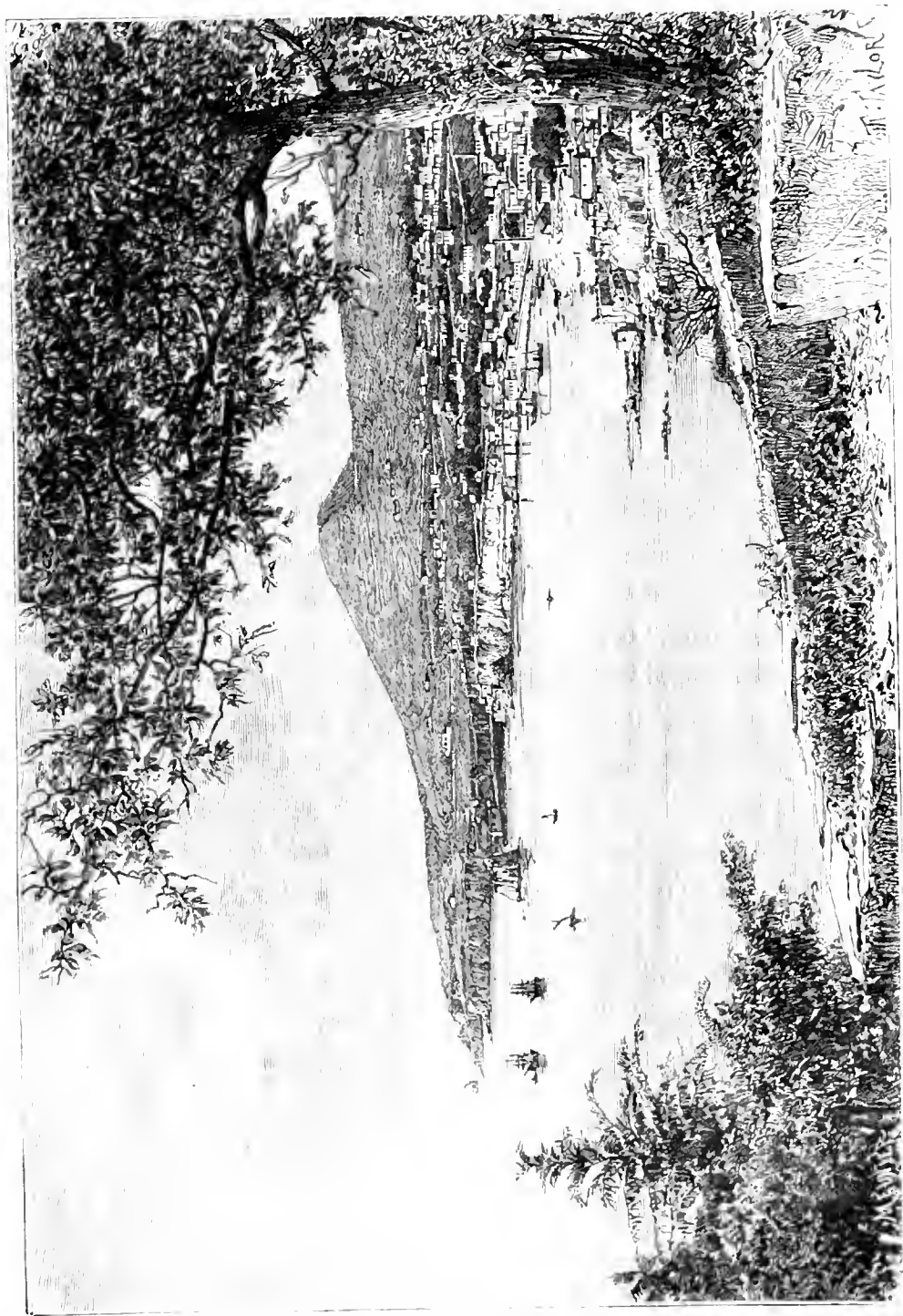
favoured climate. Such are rickets, scrofula, consumption, and even leprosy, as in the mother country. The women emigrate far less than the men, so that they are always in excess by several thousands. During the quarter of a century between 1835 and 1859, over 50,000 altogether emigrated, either to the British West Indies, or to Demerara and Brazil, and settlements have also been formed in the Cape and the Sandwich Islands.

The land system is the same as that which prevails in the Azores. Although landed property has been free since 1863, the descendants of the old feudatories still own the soil and the water used in irrigation. The tenant, however, claims all the produce and all structures erected by himself, so that he cannot be dispossessed without receiving compensation for the standing crops and improvements. He has, in fact, become co-proprietor, and may even sell his *bemfeitoria*, or "interest," without the consent of the *morgado* (ground landlord). In theory the rent claimed by the latter represents half the crop, but it is usually less, and in some cases not even one-fourth.

The first great staple of agriculture was the sugar-cane, imported from Sicily, and in the sixteenth century so prosperous that the hundred mills at that time employed yielded over 90,000 cwts. But this industry having been ruined by the competition of Brazil, capitalists took to wine-growing, the plant, introduced from Candia in the fifteenth century, having succeeded beyond all hope. The better vintages acquired, under the names of "malvoisie" and "dry Madeira," a high repute, and at the time of its greatest prosperity, about 1820, the total yield amounted to 2,650,000 gallons, valued at £500,000. But in 1852 oïdium, after wasting the vineyards of the Cape Verd and Canary groups, attacked those of Madeira. The ruin was sudden and terrible, and when growers began to recover themselves in the course of ten or twelve years, phylloxera invaded the districts which yielded the choicest vintages. Nevertheless, the struggle continues, and Madeira still exports wine blended either with the ordinary white vintage of Portugal, or with cider, or even with the juice of the sugar-cane. The vine grows best in the Funchal district and at the entrance of the southern gorges. It is rare on the northern slope, where its tendrils twine round the branches of the chestnut.

Early vegetables, exquisite bananas, and other sub-tropical fruits, are raised for the Lisbon market. Were trade relieved from its fiscal burdens, this industry might be vastly developed, and Madeira might become the southern garden of Western Europe. Lisbon also largely imports the products of the local handicrafts, such as lace, embroidery, artificial flowers, straw hats, matting, carved and inlaid wood, and a thousand other objects needing taste and a deft hand. In the villages these articles are produced chiefly by the women and the infirm.

Another less praiseworthy but no less profitable pursuit is the systematic plunder of invalids and other strangers who come to recruit their strength in this delightful island. But many of these die in the place where they sought renewed life, and Madeira has even been called "one of London's cemeteries." The fault, however, as remarked by M. Thiercelin, is not with the land where people come to die, but with that where they have lived. The number of visitors varies from year to year



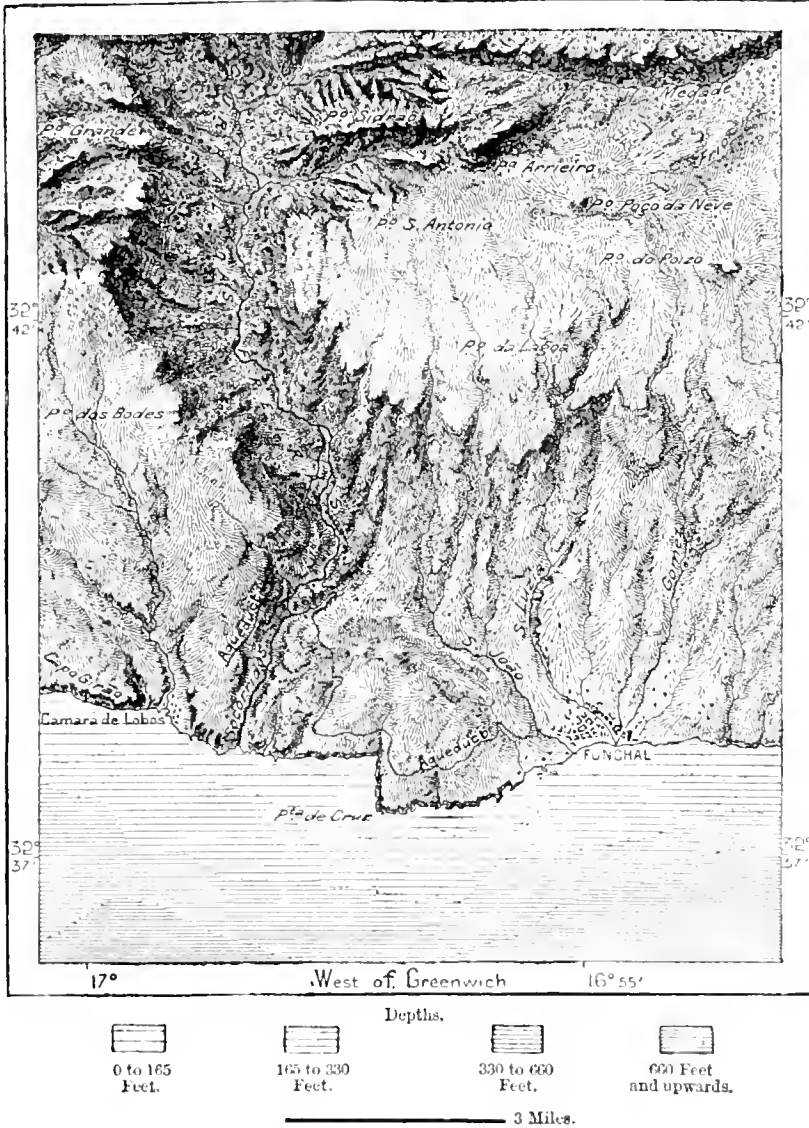
FUNCHAL—EAST VIEW.



with the whim of fashion and the vicissitudes of trade. But the strangers who pass the winter in Funchal may on an average be estimated at five hundred, mostly English, who spend about £100,000 in the country. Lying on the track of the Atlantic steamers plying along the West African seaboard, Madeira also bene-

FIG. 23.- FUNCHAL AND SOCORRIDOS VALLEY.

Scale 1 : 1:30, (KM).



fits by the constant arrival of numerous passengers, who land for a few hours or days on this fortunate island. Of late years Madeira has also become a health resort for European civilians, officials, and soldiers residing on the west coast of Africa, Senegambia, Sierra-Leone, or Liberia. They come to breathe the cool sea-breezes in the same island where men from the north bask in the warm mid-day sun.

## TOPOGRAPHY.

The presence of all these wealthy strangers could not fail to transform the town where they take up their abode. Thanks to them, *Funchal*, capital and only town in the island, has assumed a neat and elegant appearance, with pleasant walks and charming villas dotted over the slopes and crests of the surrounding hills. Lying on a roadstead open to the south, and deep enough for large vessels, and slightly protected by a fortified islet from the south-west, Funchal now possesses a thoroughly sheltered harbour enclosed by a breakwater connecting the island with the mainland. It has the further attraction of surprisingly fertile gardens, and the picturesque valley of the Socorridos with its magnificent amphitheatre of cultivated slopes commanded by a semicircle of hills, whence the streams flow in gorges converging on the town. The entrepôt for all the produce of the island, Funchal is also the seat of three large colleges—the lyceum, the seminary, and the medical school preparatory for the University of Coimbra. These schools are pretty well attended, but in the rest of the archipelago great ignorance prevails, more than half of the population being entirely illiterate. Next to Portuguese, the most widespread language is English, mother-tongue of most of the visitors and passing seafaring population.

*Porto-Santo*, ruined by the “colonial contracts,” which secured half of all the produce to the landed proprietors, has only 1750 inhabitants altogether. Nevertheless its capital, *Baleira*, takes the title of city.

Like the Azores, Madeira forms administratively an integral part of the kingdom of Portugal, constituting a separate province under the name of Funchal, its capital, since the arrival of the first settlers.

Although geographically belonging to the Canaries, the little *Selvagens* group are usually considered as a dependence of Madeira, from which they are distant about 180 miles. Of these uninhabited and worthless islets a Funchal family claims the ownership. They comprise the Great Piton, 5 miles in circumference, and the Little Piton connected with it by a chain of rocks and reefs, frequented by myriads of aquatic birds.

## THE CANARY ARCHIPELAGO.

Lying much nearer the continent than the other Atlantic groups, the Canaries, which are within 64 miles of the nearest Maroccan headland, have been known since the commencement of the historic period. They are the Fortunate Islands of the Greek poets, the abode of departed heroes, who here enjoyed everlasting life under a delightful climate, never checkered by storms or biting frosts. But in those days no geographer could indicate the precise locality of those blissful islands, which in the imagination of the ancients were confused with all the Atlantic lands lying in the “ocean stream” beyond the Pillars of Hercules. Strabo tells us that the Phœnicians knew them well, but kept the secret of their discoveries to themselves. Even in the Periplois of Hanno, the Carthaginian,



mention is made only of the in-shore islands, which can scarcely be identified with the Canaries, unless Teneriffe be the "Land of Perfumes," whence flowed seawards fiery streams, and which were commanded by a lofty mountain, known to mariners as the "Chariot of the Gods." Nevertheless the name of Junonia, applied by Ptolemy to one of the islands, would suffice to show that here was a Carthaginian settlement, for their great goddess was Tanith, identified by the Greeks and Romans with their Juno.

The oldest extant documents which attempt to fix the exact locality of the Fortunate Islands, date from the time of imperial Rome, and the first mention of the word *Canaria* occurs in Pliny, who on the authority of a certain Statius Sebosus, assigns it to one of the islands, whence it has been extended to the whole group. According to Paidherbe, this name is derived from the Berber *Canar*, or *Ganar*, formerly attributed to the neighbouring African seaboard; and the Wolofs even still apply the term *Ganar* to the region stretching north of the Senegal river. Ptolemy also calls one of the western headlands of Africa *Canaria*, while Pliny speaks of some "Canarian" tribes among the populations dwelling about the Atlas Mountains.

Amongst the islands mentioned by the ancient writers, two only can be now identified by their name—*Canaria*, the Great Canary of modern times, and *Nicaria*, or the "Snowy," which certainly refers to the Peak of Teyde. The latter being described as the island farthest removed from the Gates of Hercules, it would seem to follow that the three western islands of Gomera, Palma, and Hierro, were unknown to the ancients, so that the others named by them would have to be sought in the group comprising Lanzarote, Fuerteventura, and the neighbouring islets. Several of these being mere reefs were left unnamed, just as at present we speak summarily only of the seven larger islands, although, including the Selvagens, the whole archipelago comprises as many as sixteen distinct lands.

Although it is impossible to identify Edrisi's seventeen islands of the "Gloomy Ocean," the Arabs are generally believed not only to have been acquainted with the *Khalidat*, or "Eternal" islands, but also to have lived, jointly with the Berbers, in the eastern part of the archipelago. In the thirteenth century Ibn-Said describes in detail the voyage of the navigator, Ibn-Pathima, to the south of Cape Bojador, and his shipwreck on the Arguin Bank. Nevertheless De Macedo has endeavoured to show that the Arabs were ignorant of the existence of the Canaries, and that their geographers merely repeated with modifications the texts of the ancients referring to this archipelago.

While the Portuguese sailors were still cautiously feeling their way along the African seaboard, the Canaries, which lie south of Cape Nun, had long been visited by those of other nations. Before the expeditions of Gil Eannes, the Portuguese had not ventured to double Cape Nun, and did not get beyond Cape Bojador till 1436, whereas the Genoese were already acquainted with the Canaries at the end of the thirteenth century, and had even occupied Lanzarote, one of the group. Petrarch, born in 1304, tells us that "a full generation before his time"

a Genoese fleet had reached the archipelago; and Lanzarote was the name of the Genoese conqueror (Lanzaroto Marocello) whose family was one of the most powerful in the republic, from the beginning of the twelfth to the end of the sixteenth century. This family was itself of Norman origin, and when the Normans, under Béthencourt, occupied Lanzarote in 1402, they there found "an old castle formerly built by Lancelot Maloesel, as is said."

During the fourteenth century the Canaries were frequently visited by Europeans, either as pirates or here shipwrecked, and a chart dating from 1351 presents an exact outline of the archipelago, with the names still current, Teneriffe alone excepted, which was called "Hell Island," on account of its burning mountain. The European kings had already begun to contend for these oceanic lands, and in 1344 Pope Clement VI. presented them to one of his favourites, Luis de la Cerda, whom he named "Prince of Fortune;" but the new sovereign lacked the means needed to enable him to take possession of his kingdom. All the expeditions to these waters, even those of the Italians Angiolino di Tagghia and Nicolosi di Recco for Alfonso IV. of Portugal, were still made for plunder, and not for conquest. As says the local chronicle: "Lancelot was once very thickly peopled, but the Spaniards and other sea-robbers have oftentimes taken and carried them away into bondage." No actual conquest was attempted till 1402, when the Norman Jean de Béthencourt landed on Lanzarote with fifty men. He was well received by the people; but internal discord, the want of provisions, and a bootless excursion to Fuerteventura, would have caused a total failure had Béthencourt not offered the suzerainty to the King of Castille in return for men and supplies. Thanks to this help he was enabled to occupy Fuerteventura in 1404, and Ferro (Hierro) in 1405; but his expeditions to the other islands were defeated, and Gomera alone was added to the European possessions by his successor. The valiant resistance of the natives was not finally overcome until the King of Spain had formally decreed the annexation of the archipelago as an integral part of his states, and had undertaken the conquest by regular military armaments. Thus were reduced Palma and Great Canary in 1493, and Teneriffe in 1497, when the *menceys*, or kinglets, hounded down like wild beasts, were captured, baptised, and led in triumph to the King of Castille for the amusement of the court. The conquest had occupied altogether nearly a century.

But other lands were still supposed to exist farther west, and in 1519 the King of Portugal yielded to Spain the undiscovered island, which, however, a first expedition in 1526 failed to find. The belief in its existence still lingered on even after further efforts were made to discover it by the Spaniards in 1570, 1604, and 1721, and by the Portuguese from the Azores. At last it was concluded that this phantom island was only a mirage of Palma, which it resembled in outline, produced on the western horizon by the refraction of the moist air brought by the west winds; in any case the seas had already been explored in every direction, so that further researches became useless. Yet the legend still survives, and the few adherents of the Sebastianist sect, who await the return of the Portu-

guese prince from the fatal battlefield of Alkazar-el-Kebir, cherish the hope that the undiscovered land will at the same time rise above the surface of the waters.

## GEOLOGY OF THE CANARIES.

The Canaries are not disposed in any regular order, although roughly forming the arc of a circle, whose convex side faces southwards. But Gomera and Hierro lie beyond this curve, and the archipelago consists rather of two distinct groups—Lanzarote, Fuerteventura, and neighbouring islets in the east; the five other large islands in the west. The first group runs parallel with the continental seaboard; the second, on the contrary, is disposed at right angles with the mainland. The two eastern islands stand on a common submarine plateau, whereas all the others lie in deep water, where in some places a thousand-fathom sounding line fails to touch the bottom. Lanzarote and Fuerteventura again are but slightly elevated compared with the western group, presenting in fact a steppe formation like that of the opposite continent. All, however, are alike of volcanic origin, their contour being nearly everywhere broken by headlands formed by eruptive rocks, while the primitive or sedimentary formations occupy a very small space amid the lava beds covering most of the surface.

Their very aspect attests the antiquity of most of the trachytes, basalts, or obsidians in the western group, where the slopes of the hills are generally furrowed by deep gorges excavated in the course of ages by the running waters. Hence it is difficult to recognise the primitive form of the lava streams formerly ejected from the volcanoes, while in many places the craters themselves have disappeared. Gran Canaria (Great Canary), central member of the whole archipelago, where no eruption has occurred during the historic period, has been most weathered by atmospheric influences, by which the rocks have here been sculptured anew. Vast cirques have thus been opened for the rains of the interior, and the débris carried away seawards, the amount of denudation representing a considerable part of the original insular mass.

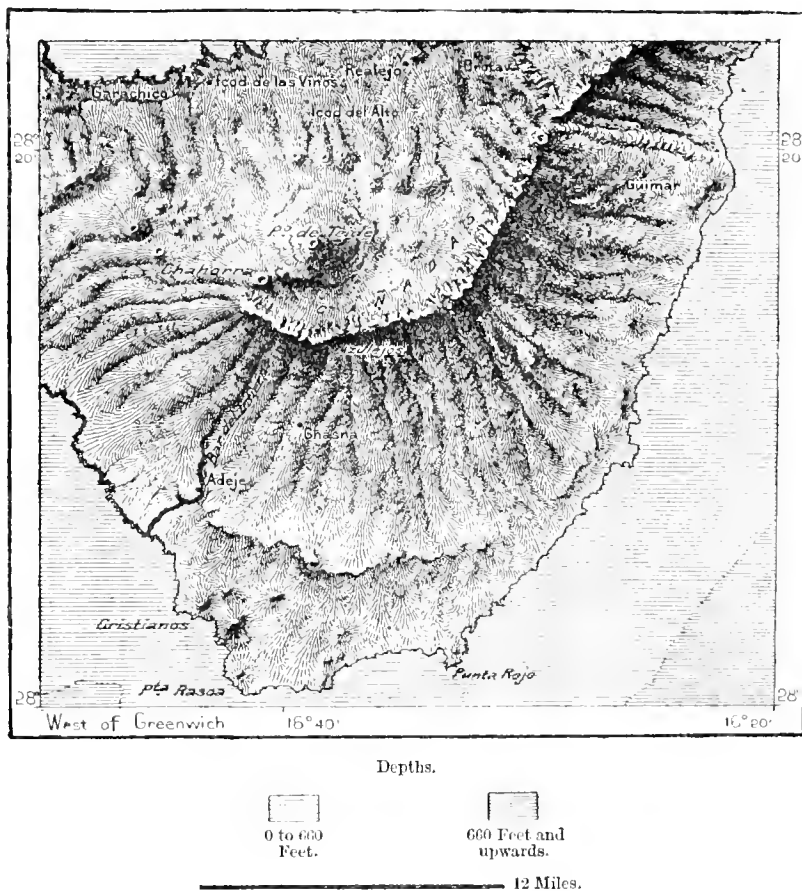
The absence of vapour jets and of thermal springs also bears witness to the antiquity of the volcanoes in the Canaries, compared with those of the Azores, which still abound in gases and boiling waters. No doubt there have been extensive discharges of lava and violent earthquakes even since the rediscovery of the archipelago; but these phenomena have been confined to the three islands of Lanzarote, Palma, and Teneriffe. Nor do the local records speak of ephemeral islands analogous to those heaps of scorïæ which have so often appeared and disappeared in the Azorian waters. The only instance occurred during the series of eruptions which lasted for six years in the western district of Lanzarote, when flames mingled with vapour flashed up close in-shore, and cones of scorïæ, rising above the surface, gradually expanded until they became attached as headlands to the coast. On the same occasion the marine inlet of Janubio was converted into a lake by the enormous quantity of scorïæ thrown up by the craters.

## CLIMATE OF THE CANARIES.

Lying farther south than Madeira and nearer to the African continent, the Canaries have a warmer and somewhat less equable climate than that group. The annual extremes of temperature are greater not only in the eastern islands, which are naturally influenced by the neighbouring Sahara, but also in the western group, of which Teneriffe is the centre. Here the glass falls at Santa Cruz to  $64^{\circ}$  F. in winter, rising to  $77^{\circ}$  in summer, with a mean of  $70^{\circ}$  F., and a difference of  $14^{\circ}$  between the hottest and coldest months. There is no winter in the European

Fig. 24.—TEYDE PEAK

Scale 1 : 500,000.



sense of the word, the heat being greater at this season than the average of southern Italy. Nevertheless, the coldest day has a temperature of  $46^{\circ}$  F., while summer is at times too hot for Europeans, especially in the eastern group, where the Saharan blasts prevail much more frequently than in Madeira. With them come dust-charged clouds, blighting the vegetation, causing the ground to crack, men and animals to pine, and at times bringing swarms of locusts, which in 1588 were carried as far as Teneriffe.

The Canaries have a relatively slighter rainfall than Madeira, and especially than the Azores, months at times passing without a single refreshing shower. On an average there are reckoned three hundred rainless days, the regular rains usually beginning at the end of November and lasting two months. They thus mainly coincide with the west winds, although moisture is also precipitated at other times, and especially in spring, when opposing currents of varying temperature meet in this region. In winter the clash gives rise to tornadoes, local cyclones destructive to shipping and to the crops. But the great cyclones of the West Indies never sweep the Canarian waters. During the dry or summer season, from April to October, the aerial currents set steadily from north-east to south-west, and the "brisa," or trade wind, is so constant that all navigation of sailing craft in the opposite direction is entirely interrupted.

Owing to the friction of opposing atmospheric currents, the moisture is greater on the plateaux and slopes of the mountains. Thus on the Peak of Teyde a layer of clouds intermediate between the trade winds and the counter currents rises and falls according to the elevation of the zone of contact, usually descending in summer down to from 3,600 to 6,500 feet and in winter to between 1,650 and 2,300 feet above sea-level. In Tenerife three aerial strata—the counter wind, trade wind, and marine breeze—may be observed all superimposed one above the other. In proof of this normal disposition, Humboldt refers to two windmills, which worked nearly always simultaneously, one revolving towards the north-west, the other towards the south. Thus the inhabitants of Tenerife and of the other mountainous islands are able to remove at pleasure from one climate to another, selecting the degree of heat and moisture best suited to their constitutions. Thanks to this advantage, the number of invalids coming to the Canaries in search of renewed health is yearly on the increase, and these islands will probably in the near future be resorted to more generally even than Madeira.

#### FLORA OF THE CANARIES.

With a drier climate than Madeira, and especially the Azores, the Canaries present a less verdant appearance than the northern archipelagoes, and in many places are even quite destitute of vegetation. In Lanzarote and Fuerteventura neither forests nor plantations of the same species are any longer visible, and the land here assumes the aspect of the steppe. But patches of woodland still survive in the western group, and especially in Palma, at once the best-timbered and the best-watered of all.

But although their vegetation is less exuberant, the Canaries are distinguished from the other archipelagoes by a relatively larger number of different species, Webb and Berthelot's lists comprising as many as a thousand, or more than double the number found in the Azores. At the same time it is impossible to determine which are strictly indigenous, for even before the arrival of the Europeans the Berber natives had already modified the flora by additions from the neighbouring continent. Far greater changes were made by the Spaniards, partly by clearing

the forests, partly by tillage and the introduction of new forms directly from Europe. In all the arable tracts the land has felt the influence of the plough to an altitude of 3,250 feet. There can be no doubt that several local species have thus disappeared, while, on the other hand, thousands of exotics have found their way into the archipelago. The two most characteristic and graceful local forms are the orange-blossomed campanula and the gold-tinted *Ceterach aureum*, and to the Canaries Europe is also indebted for the lovely cineraceæ and one of the finest varieties of the chrysanthemum.

Notwithstanding their vicinity to Africa, these islands, like Madeira and the Azores, belong to the European vegetable domain. Two-thirds of their plants are European species, and most of the native forms so closely resemble European types that they may have formed part of the continental flora at some previous geological epoch. But in the eastern group, and in the low-lying districts of the other islands up to altitudes of from 1,300 to 2,600 feet, a flora of Libyan aspect corresponds to an African temperature. Here flourish the fleshy plants, euphorbias of cactus form, and such exotics as palms, nopal, and bananas. In the Veneguera Valley, Gran Canaria, *tabaibas* or euphorbias, large as fig-trees, form extensive forests. Lower down prevails the thorny and poisonous *Euphorbia canariensis*; higher up the *Euphorbia balsamifera*, with a harmless milky sap. The *Dracæus draco*, so named from its curious form and blood-red sap, is also characteristic of the African zone. The gigantic specimen of this plant which formerly flourished at Orotava, in Teneriffe, and which, after serving as a temple for the pagan Guanches, was dedicated as a chapel by the Spaniards, no longer exists, having been blown down in a gale.

The European zone, characterised chiefly by laurels and by acclimatised trees, such as the oak and chestnut, occupies the middle slopes of the western islands. Above the laurels, which flourish especially in Gomera, follow the zones of the cistus and pine, the latter represented chiefly in Palma, where is also found the Canarian cedar (*Juniperus cedrus*). The native pine is one of the most remarkable of conifers, presenting characteristics intermediate between those of Europe and the New World. Elsewhere it occurs only in the fossil state, in the Upper Miocene formations of the Spanish province of Murcia. At an altitude of 6,600 feet on the Peak of Teyde occur several peculiar plants, amongst which dominates the *Spartocytisus nubigenus*, which has preserved its Arabic name of *rtém* under the Spanish form of *retama*, and which occurs in no other country. With it are intimately associated at least four animal species also found nowhere else—a snail, a butterfly, a bird (*Fringilla Teydeana*), and a phalene.

#### FAUNA.

Thanks to the introduction of domestic species and parasites, the Canarian fauna has acquired a European aspect, while in its lower organisms still presenting an original character. Bourguignat has shown that its molluscs constitute a distinct family, remotely allied to that of Mauritania, although far more Mediterranean

than African. As in the Azores and Madeira, snakes are absent ; but large indigenous lizards, centipedes, and scorpions abound. Of the birds, several differ from those of Europe, amongst them the red partridge, highly esteemed by epicures, and the canary, which has become so common in Europe. Its new surroundings, captivity, food, climate, and crossings have gradually modified both its song and its plumage, originally green, now yellow.

It is uncertain whether the mammals found in the islands by the Europeans are indigenous or were introduced by the Berbers ; but in any case they constitute distinct varieties. Although Pliny speaks of a large canine breed, no dogs were found by the Europeans, while those since introduced have acquired special characteristics. In Lanzarote they resemble the Newfoundland, and those occurring elsewhere look like a cross between the greyhound and sheepdog. The domestic goats, numbering about sixty thousand, also differ from those of West Europe, being larger, more agile and nimble, with a mild expression like that of the gazelle, and horns gracefully curved backwards. They yield an extraordinary quantity of milk, which acquires an exquisite flavour from the aromatic plants on which they browse. A wild variety is also found in the islet of Montana Clara, near Lanzarote, and in the southern part of Fuerteventura. There is also a vigorous breed of camels in the eastern islands between Lanzarote and Gran Canaria, introduced probably by the Berbers.

The marine fauna is on the whole more allied to that of Europe than of Africa, most of the species being Iberian, Mediterranean, and British. There are even several American fishes, which do not occur on the coast of the neighbouring continent. The waters encircling the Canaries are amongst the best stocked in the Atlantic, and are frequented at all seasons by hundreds of fishing smacks without materially diminishing their teeming animal life. The fish in most request is a species of cod, rivalling in quality that of Newfoundland. With more efficient means these fisheries might be more productive ; but the fish are badly cured and little exported, being mostly required for the local consumption.

#### INHABITANTS OF THE CANARIES.

The Canaries have been inhabited from the remotest times. The types of the successive Stone Ages are perfectly represented in the archipelago, where are found a thousand objects, such as hatchets, clubs, earthenware, textiles, analogous to those occurring in the prehistoric mounds of Europe and America. But no trace has been met of the flint arrow-head, the lack of which is explained by the native archæologist, Chil y Naranjo, by the absence of rapacious animals in the islands. When studying the multitude of objects already collected, the observer is struck by the progress made from generation to generation in the arts and industries by the indigenous race. But the masterpieces of their skill were specially reserved for the nobles. In the same grotto are found fine garments, perfectly worked utensils embellished with ornamental designs and hieroglyphics, side by side with coarse fabrics and earthenware. Thus has been revealed the ancient aristocratic constitution of Canarian society.

The islanders were unacquainted with the metallurgic art, and whatever Azurara may say to the contrary, no iron implements, gold or silver ornaments, have been found amongst them. Nevertheless, the solid construction of the burial-places in Teneriffe, the skilful disposition of the stones in the buildings of Fuerteventura, Gran Canaria, and Lanzarote, the convenient arrangement of the rooms in their dwellings, their paintings in ochre, all attest the high degree of civilisation reached by them in the pre-historic period. The chaplains associated with Béthencourt's expedition have left on record that in Fuerteventura they saw "the strongest castles that could be found anywhere." The idols, figures, and ornaments designed on the vases bear a great resemblance to the types presented on the Egyptian monuments.

Inscriptions in characters like those of the Libyan alphabet have even been found at the very extremity of the archipelago, in the Belmaco grotto, Palma, on a wall on the east side of Hierro, and in Gran Canaria. Proof is at least thus afforded that relations existed between the Berber peoples of the mainland and the islanders, although on the arrival of Béthencourt the latter no longer possessed boats, having in this respect apparently deteriorated. These inscriptions also add great probability to the hypothesis that the natives were of Arabo-Berber origin, all the more that the words of various dialects collected by Webb and Berthelot, to the number of about a thousand, and the proper names preserved by historians, are evidently Berber, also presenting some analogies with Arabic. Benchoare, the old name of Palma, seems obviously identical with that of the powerful Beni-Hawara tribe, while the Bimbashos of Hierro recall the Ben-Bashirs. Teneriffe also supplies many proper names beginning with the article *al* or with the substantive *ben* of the Semitic language. Most ethnologists are of accord in regarding the extinct Canarians as "one of the noblest branches of the Berber race," although some writers have looked on them as Kelts, Basques, or even Vandals, on this ground claiming the archipelago as a future province of the Germanic empire.

The study of the skulls and bones undertaken by modern anthropologists, while demonstrating the diversity of races in the archipelago, still confirms the first hypothesis regarding the eastern origin of a large number of the inhabitants. In Fuerteventura, Hierro, Palma, and other places, the cranial type is essentially Syro-Arab, the identity being almost absolute between these Canarians, the Algerian Arabs, and the fellahin of Egypt.

All the former inhabitants are usually spoken of under the collective name of Guanches, a term which, under the forms of Vincheni and Guanchinet, seems to have properly belonged to the Teneriffe islanders alone. Like hundreds of other racial names, it is said to have meant "men," "people," the little Guanche race constituting in their own eyes all mankind. According to contemporary evidence, these Berbers, some fair, some brown, but all with long head and limbs, were distinguished from the Arabs by a less robust body, less elongated features, less retreating brow, a broader and shorter nose, and thicker lips. They had large black eyes, thick eyebrows, fine hair, smooth or undulating, the whole expression



being frank and pleasant, corresponding to an unsuspicious, cheerful, and mild disposition. Endowed with marvellous agility, they bounded like deer from rock to rock, and such was their strength that with two or three blows of the fist they would break a shield to pieces. They went naked, or clad with a light garment of grass or a few goatskins, smearing the body with fat or the juice of certain herbs to render it insensible to changes of temperature. Men and women also painted themselves in green, red, or yellow, expressing by such colours their particular affections.

Marriage usages differed greatly from island to island, monogamy prevailing in Teneriffe, while polyandria is said to have been practised in Lanzarote. But the women were everywhere respected, an insult offered to any of them by an armed man being a capital offence. The natives were also very religious, venerating the genii of the mountains, springs, and clouds, addressing invocations to them, unaccompanied, however, by bloody sacrifices. In times of drought they drove their flocks to the consecrated grounds, where the lambs were separated from the ewes, in order to propitiate the Great Spirit with their plaintive bleatings. During the religious feasts a general truce suspended all civil strife and even private quarrels; all became friends for the time being. Priests and priestesses were highly venerated; and in Gran Canaria a *faican*, possibly the Arab *fakih*, or fakir, presided at the great solemnities, his power acting as a check on that of the *guanarteme*, or political chief.

In some islands the authority of these chiefs was absolute, while elsewhere small feudatories were united in confederacies. In Teneriffe all the land belonged to the *menceys*, or "kings," who leased it out to their subjects. The haughty nobles claimed descent from an ancestor created before that of the poor, who had been commanded to serve him and his race for ever. They looked on manual labour as degrading, and they were especially forbidden to shed the blood of animals, although they might boast of slaughtering men on the battlefield, and burning or quartering their Spanish captives. Nevertheless, they did not constitute an exclusive caste, as any plebeian might become ennobled through favour or in virtue of some great deed. The power of the chiefs was also limited by a supreme council, which discussed the affairs of state, judged and sentenced criminals. In Gran Canaria suicide was held in honour, and on taking possession of his domain a lord always found some wretch willing to honour the occasion by dashing himself to pieces over a precipice. In return the nobleman was held greatly to honour and reward with ample gifts the victim's parents.

In Palma the aged were at their own request left to die alone. After saluting their friends and relatives, and uttering the words *Vaca quare*, "I wish to die," they were borne on a couch of skins to the sepulchral grotto, and a bowl of milk placed by their side. Then all retired, never to return. The method of interment varied with the different islands. In Teneriffe numerous embalmed mummies in a perfect state of preservation have been exhumed from the sepulchral caves and vaulted chambers covered with vegetable humus. These mummies, which belonged to the wealthy classes, were carefully wrapped in skins sewn together with

surprising neatness by means of bone needles. The processes of embalmment seem to have greatly resembled those of the ancient Egyptians.

Since the sixteenth century the natives have ceased to exist as a compact nation. For over a hundred and fifty years they had bravely repelled the attacks of corsairs and invaders, although their only weapons were stones, clubs, and darts hardened in the fire or tipped with a sharp horn. They would have remained unconquered but for the policy of employing those already reduced against the still independent islanders. Although they spared their prisoners, and often restored them to liberty, no mercy was shown them beyond the alternative of captivity or death. In the middle of the fifteenth century Gran Canaria and Teneriffe were still independent, with a joint population of 25,000. The conquest of these islands lasted thirty years, during which most of the men were killed or brought to Spain and sold as slaves in Cadiz or Seville. Others committed suicide rather than survive the loss of their freedom, while a large number were swept away by the *modorra*, an epidemic like those which have recently carried off so many tribes in America and Oceania. The survivors were baptized, forgot their language and customs, and gradually merged in the Spanish population. The last descendant of Bencomo, last King of Teneriffe, took orders and died in 1828 at the Spanish court.

Nevertheless, Guanche blood still survives in the half-castes sprung from alliances between the first Spanish settlers and the native women. Their distinctive features may still be recognised in many islands, where atavism and the environment keep alive the old element amid the Spanish Canarians. Like their Berber ancestors, the present populations are of a cheerful, trusting disposition, slow to anger, without bitterness or resentment, and very gentle, notwithstanding their passion for cock-fighting. In some villages many of the old customs are still preserved, as well as a number of Guanche family names, and terms indicating plants, insects, or implements. The dances also and shouts of joy are the same as among the old Guauches, and like them the present inhabitants throw corn in the face of the newly married to wish them luck.

The European elements are variously distributed throughout the archipelago. The Norman and Gascon followers of Béthencourt and Gadiffer were soon lost in the flood of the Spanish population, in which Andalusian blood seems to predominate. After the conquest Moors were introduced into Gran Canaria, while Irish immigrants escaping from religious persecution founded numerous families in Teneriffe. Some of the villages in Palma were also repeopled by industrious families from Flanders, which, however, soon merged in the Spanish population, even translating their Teutonic names into Castillian. Thus the Groenberghe ("Greenhill") became Monteverde, and notwithstanding their diverse origin, all the inhabitants of the archipelago have long been zealous Spanish patriots. All attacks made on their fortified towns were always successfully repelled. French Huguenots, Barbary corsairs, English buccaneers, and even a Dutch fleet of seventy ships, vainly attempted to take either Teneriffe or Gran Canaria, and in 1797 Nelson himself failed to reduce Santa-Cruz, losing a ship and an arm on the occasion.

The only local industries are agriculture and fishing. Formerly the islanders

Fig. 25.—GENERAL VIEW OF SANTA-CRUZ, TENERIFFE.



sent to Europe "the best sugar known," after which viniculture acquired great

importance until the vineyards of the Canaries, like those of Madeira, were ruined by oidium. Planters then turned their attention to cochineal, which was first introduced in 1825, but was little developed till 1852, when guano began to be used to stimulate the growth of the nopal cactus, on which the insect feeds. In a few years the production far exceeded that of the whole world, and extensive forests were cleared in Gran Canaria and Teneriffe to extend this industry, which still forms the largest staple of export, although now mostly replaced by anilino and alizarine dyes.

In 1862 several attempts were made to introduce tobacco, which succeeded beyond all expectation, especially in Palma and parts of Gran Canaria. At present the Canary cigars are held in almost as great esteem as those of Havana itself. Of alimentary plants, next to cereals, onions and potatoes are the most important, and are largely grown for the Cuba and Puerto-Rico markets. Oranges, although of fine flavour, are no longer exported.

The agricultural produce is insufficient for the constantly increasing population, which has consequently begun to emigrate in large numbers. As comparatively few women take part in the movement, the census of 1877 showed an excess of 20,000 females over males in a total population of 280,000. Most of the young men go to Havana, whence, after making their fortunes, a few return under the name of "Indios," meaning in the eyes of the natives that they possess "all the wealth of Ind." When Louisiana belonged to Spain (1765 to 1800) many Canarians settled in that region, where some of their communities still maintain an independent existence. In 1897 the total population was estimated at 300,000.

#### TOPOGRAPHY—LANZAROTE.

*Aleganza*, the first island in the extreme north-east, scarcely deserves this appellation, being little more than a rocky and arid mass of lavas dominated by a "caldron" or crater 360 feet high. A lighthouse on the east side illumines the waters of this first Canarian rock, which is occupied by a solitary family engaged in collecting orchilla and capturing birds.

Farther south rises the cone-shaped *Montana Clara* (280 feet), followed by *Graciosa*, which is separated only by a rio, or "river," that is, a narrow channel, from Lanzarote. It was formerly wooded; but the timber having been cut down by the owner, most of the island has been covered with sand from the Sahara. The sands have also invaded *Lanzarote* itself, which now consists mainly of sand, ashes, and scorice. The slopes are destitute of trees, springs are rare, and the islanders have in many places to depend on the brackish water of their wells and cisterns.

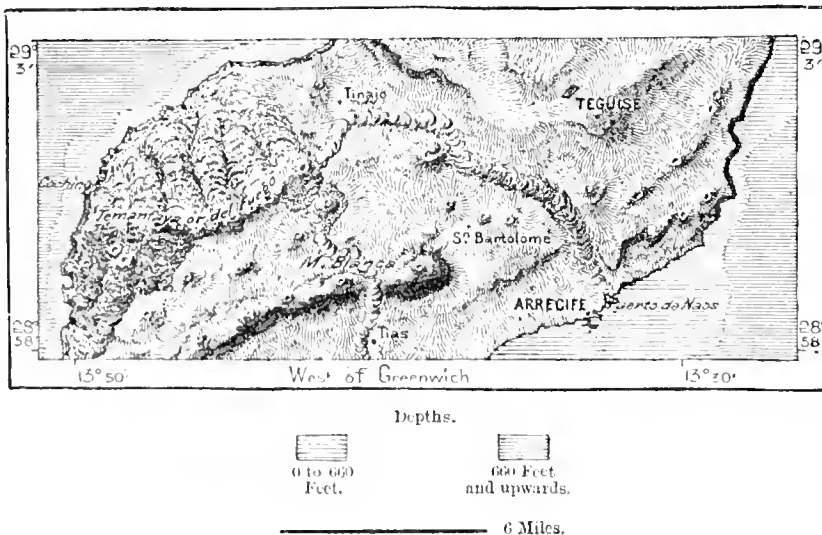
The hills of Lanzarote develop a regular chain only in the north, terminating westwards in the volcanic cones of Corona, Helechos, and Famara, the last being the highest summit in the island. East of Corona occur a number of elliptical and circular pits, varying in depth from 30 to over 60 feet, and leading to galleries formed, like those of the Azores, by the rapid flow of lavas in a highly fluid state. In some places several of these galleries are disposed in storeys one above the other,

and one of them is nearly three-quarters of a mile long. Nowhere else, except in the Sandwich Islands, has such a vast system of volcanic caverns been discovered. They often served as refuges for the inhabitants and their flocks during the incursions of the Barbary corsairs.

The centre of Lanzarote is traversed by a low ridge skirted on the one side by shifting sands, on the other by lava-streams with volcanic cones everywhere strewn about in disorder. From the *Montana Blanca*, highest point (1,400 feet) of this central district, there stretches a chain of lava hills and craters running north-east and south-west, west of which the plains are covered with coal-black ashes. Amid these hills, bearing the expressive names of *Playa Quemada* ("Burnt Strand") and *Monte del Fuego* ("Fire Mountain"), were opened the crevasses whence flowed the lava-streams of 1730 and following years, "at first rapidly as water, then slow as

Fig. 26.—RECENT LAVAS OF LANZAROTE.

Scale 1 : 360,000.



honey." During these formidable eruptions thirty volcanic cones rose above the lava-fields, which spread over nearly one-third of the island, and which in 1824 again emitted flames and streams of pestilent mud.

*San Miguel de Teguise*, or simply *Teguise*, former capital of Lanzarote, still bears the name conferred on it by Béthencourt in honour of his native wife. Lying in a waterless district in the centre of the island, it has been replaced by the new capital, *Arrecife*, which lies in the middle of the east coast, between two completely sheltered havens. The northern port, *Puerto de Naos*, is especially well protected by a chain of reefs and islets, and the English traders here settled monopolise the traffic with Mogador in Morocco, and with the other islands of the archipelago.

The castle of Rubicon, erected by the conqueror of Lanzarote, no longer exists, but it has given its name to the eastern extremity of the island.

## FUERTEVENTURA.

*Fuerteventura*, the *Erbania* of the old inhabitants, is separated from Lanzarote by the Bocaïna Channel, only 6 or 7 miles wide, but everywhere at least 650 feet deep. Towards the southern entrance lies the isle of *Lobos*, consisting of a large crater partly destroyed and encircled by lava-streams and sandhills. Like Lanzarote, Fuerteventura presents an arid and dreary aspect, and is destitute of trees except some stunted tamarisks in a few sheltered glens, and some clusters of date-palms, cocoa-nut, fig, and almond trees round about the villages. But the island is better watered than its neighbour, having some running streams, which however become brackish before reaching the coast. The rocks also are less porous than those of Lanzarote, so that the rainwater does not disappear so rapidly in the soil. But despite these advantages and its noted fertility, Erbania has perhaps less inhabitants than at the time of the conquest. Although over 60 miles long from north-east to south-west and exceeded in extent only by Tenerife, it has a smaller population than the large towns of the archipelago, being at the last census scarcely more than twelve to the square mile. This is mainly due to the monopoly of the land by a few hands, over half the island belonging to a single family. The southern peninsula of *Jandia*, forming almost a separate island 70 square miles in extent, is held by a single farmer, who in 1883 had attracted only sixty-seven inhabitants to his estate.

In the north little is seen except sands and heaps of scoria; but the land gradually rises southwards, forming a very irregular central ridge running north-east and south-west, and consisting of crystalline rocks, syenites, diorites, diabases, with here and there layers of argillaceous schists and limestones. Right and left of the ridge, craters have appeared, while lavas fill all the depressions. The ridge terminates southwards in the Cardon Hills, connecting it with the rugged Jandia peninsula by a chain of basalts and limestones scarcely 350 feet high, but abruptly rising to 2,650 feet on the west coast. Formerly the peninsula was cut off from the rest of the island by a cyclopean wall, all traces of which have not yet disappeared.

Like Tegüise in Lanzarote, *Betancuria* in Fuerteventura has lost the rank of capital given to it by its founder, the conqueror of the island. The present capital is *Puerto de Cabras*, the chief centre of population, on the side facing the African mainland. But the largest towns, such as *Casillas del Angel*, *Ampuyenta*, *Antigua*, and *Tuineje*, are grouped in the fertile plains of the central districts, bounded by the steep cliffs and lava-fields of the "Mal país."

## GRAN CANARIA.

*Gran Canaria*, which gives its name to the whole archipelago of which it occupies the geographical centre, differs in its general relief altogether from the eastern islands. Instead of presenting long ridges, isolated masses, or distinct volcanoes dotted over the plains, it constitutes a single mountain mass with flattened

cone rising above the surrounding waters. The epithet "Great" would seem to have been applied to it by Béthencourt, not on account of its size, ranking only third in this respect, but in honour of the valour of its inhabitants. Its nearly round contour bristles with headlands, especially on the north-west side, formed by the projecting spurs of the central mountain. If the form of the coast is due, as seems probable, to the erosion of running waters, the currents must evidently have trended directly east and west. Such a hypothesis would be fully in accord with the existence of a former Atlantis, by which the waters of the Gulf Stream would have been deflected southwards.

But however this be, Gran Canaria presents a summary of all the other islands, at least in the variety of its geological phenomena, and the beauty of its scenery. It has its "caldrons," like Palma, its wild barrancas, or gorges, and waterfalls like Gomera, its lava-streams and sandhills like Lanzarote, its pine forests like Hierro and Teneriffe, besides extensive cultivated tracts, aqueducts kept in good repair, some rising industries, and a relatively well-developed trade. It is also comparatively more densely peopled than the rest of the archipelago, although nearly half of its rugged surface cannot be reclaimed for tillage.

The central peak of Pozo de la Nieve ("Snow Pit") rises to a height of nearly 6,700 feet almost in the geographical centre of the island. But this peak is a cone of very small size resting on a dome-shaped pedestal, which formerly occupied all the centre of the island, and above which rise some other craggy heights, such as the "rocks" of Saucillo, of Cumbre, Bentaiga, and Nublo, the last-named forming a monolithic block 380 feet high.

Close to the south-east base of the central cone is seen the profound Tirajana gorge, which has been eroded to a depth of over 4,000 feet, and which sends its overflow seawards through the narrow fissure of Los Gallegos. The west side of this abyss presents two wide openings towards the south and south-west of the island, where the Caldron or Cirque of Tejeda forms a regular amphitheatre enclosed by an unbroken rocky wall 21 miles in circumference. From the edge of the precipice a complete view is commanded of the vast ellipse with its numerous converging streams, lines of wooded crests, and scattered villages. On the surrounding plateaux a few clusters of pines still survive, mere remnants of the forests which formerly clothed all the higher grounds in the island.

Besides these large cirques produced by erosion, there are others formed by volcanic action. Such are, east of the Cumbre, the Caldera de los Marteles, with a stream rushing down over a series of waterfalls, and the Caldera de Bandama, a perfectly round and regular crater near some Tertiary conglomerates in the north-east of the island. This caldron, which has a depth of 770 feet, has been compared by Leopold von Buch to the Lago d'Albano in the Latin hills. Near it is the Cima de Ginamar, another igneous opening, which has only been half filled in. There still remains a "bottomless" funnel, in which long echoes are awakened by stones thrown from side to side.

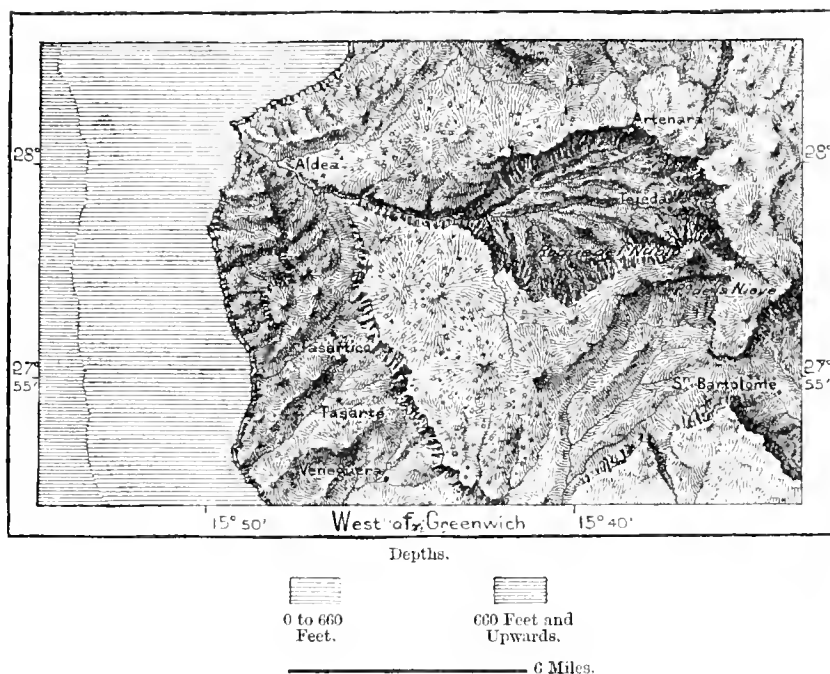
The most recent lavas in Gran Canaria appear to be those of Isleta, a small group of insular volcanoes connected with the north-east angle of the large island

by the sandy isthmus of Guanarteme. The sands of this narrow causeway, now planted with tamarisks, consist chiefly of the remains of shells and foraminifera gradually consolidated into a granular limestone with marine concretions added on both sides. These recent limestones, flecked in black by volcanic sands, are employed for making excellent filtering stones, used in all the houses of Canaria. At the time of the conquest the isthmus of Guanarteme was still nearly flush with the water, and completely inundated by high tides. Some columnar and other basalts to the north-west of Isleta recall the Giant's Causeway on the north coast of Ireland.

*Las Palmas*, capital of the island and largest city in the archipelago, lies near this sandy limestone isthmus, at the opening of the deep Guiniguada gorge, and

Fig. 27.—CIRQUE OF TEJEDA

Scale 1 : 330,000.



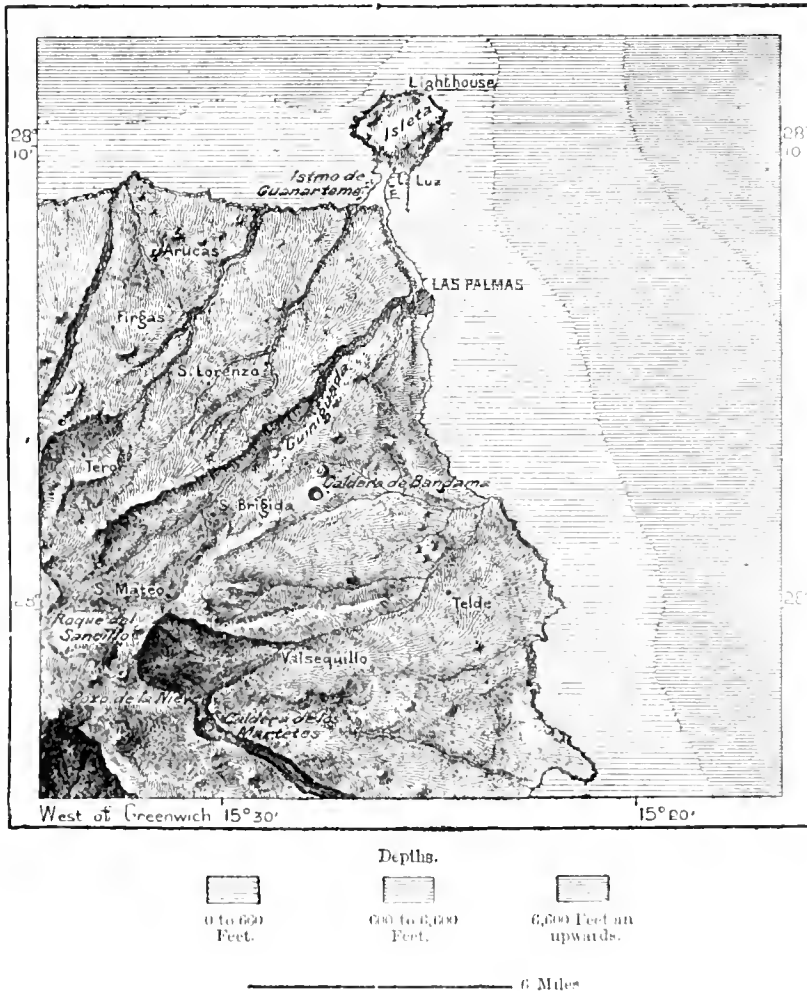
on the surrounding terraces of conglomerate, where a few shady palm-groves justify its name. The upper town is occupied by the officials, the lower by the trading class, commanded on the west by the Castillo del Rey, the chief stronghold in the island. Las Palmas presents somewhat the appearance of an Arab town, with its low flat-roofed white houses looking like an irregular flight of steps. The numerous caverns in the neighbouring rocks are still inhabited, as in the time of the Berbers. Good water is brought by an aqueduct from the hills, and carriage roads lead to the surrounding outskirts. The port lies nearly two miles to the north, where the coastline curves round the isthmus of Guanarteme to Isleta. *La Luz*, as it is called, doubtless from its lighthouse, was greatly exposed to the east winds until the construction of the breakwater, which runs from Isleta in nine



fathoms of water for 4,750 feet southwards. Over forty ocean steamers now visit the port every month, and the freedom, from custom-house charges enjoyed by Gran Canaria will doubtless soon attract many vessels which at present stop at Saint Vincent and Madeira. Las Palmas is also an industrial and scientific centre, with archæological and natural history collections, and a fine cathedral in the Spanish Renaissance style. As a health resort it offers many advantages to

Fig. 28.—NORTH-EAST SLOPE OF GRAN CANARIA.

Scale 1 : 300,000.



invalids, who can here enjoy the benefit of the mineral and acidulated waters abounding in the neighbourhood.

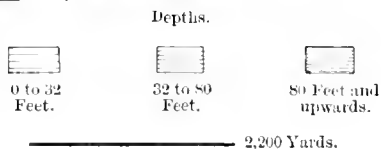
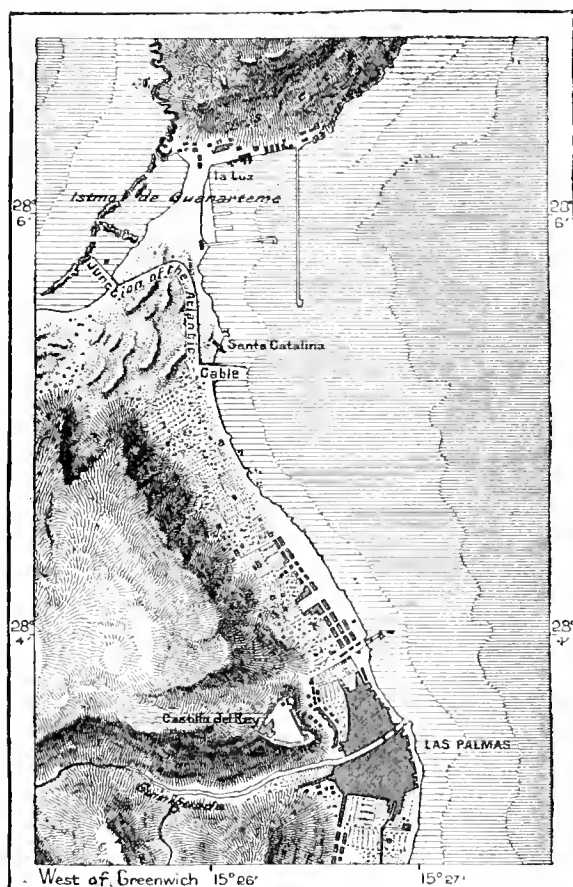
Next to Las Palmas, *Telfe* is the most important place in the island. It lies on the east coast, in the midst of gardens, orchards, and orange-groves yielding excellent fruits. The slopes west of the capital are occupied by *Arucas*, *Firgas*, and *Teror*, and on the little port of *Las Sardinias* in the north-west lies the ancient

town of *Galdar*, former residence of the native kings. On the west side the largest place is *Aldea de San Nicolas*, and on the south coast nothing is seen except some traces of the old Berber town of *Arguinequin*, where Webb and Berthelot found the remains of four hundred houses.

Numerous villages are scattered over the cirques and on the slopes of La

Fig. 29.—LAS PALMAS AND PORT OF LA LUZ.

Scale 1 : 67,000.



Cumbre. The most elevated of these is *Artenara*, which stands at an altitude of over 4,000 feet in the caldron of *Tejeda*, all its houses being excavated in the brownish tufa of the mountain. Nearly all the inhabitants are charcoal-burners, who have completely cleared many of the former wooded slopes

#### TENERIFFE.

*Teneriffe* (Tenerife, Tonerfiz, or the "White Mountain," as explained by some etymologists), is the largest island in the archipelago. Here is also the loftiest volcano, the far-famed Peak of *Teyde*, which has at times been seen to vomit from above the clouds fiery lava-streams down its steep flanks seawards. Few other oceanic beacons can compare with this majestic cone standing out in white and light blue tints against the deeper azure ground of the firmament. But although visible at times from distances of 120 and even 180 miles, it is too often wrapped in a vapour

mantle, concealing it altogether from the eager gaze of mariners.

The island itself, unlike *Gran Canaria*, consists of three distinct sections differing in their general aspect and geological age. The north-east section mainly comprises the old igneous uplands of *Anaga*, cut up, eroded in every direction, and at their base carved out by the action of the waves into deep indentations. The western section also consists of an isolated mountain mass, the

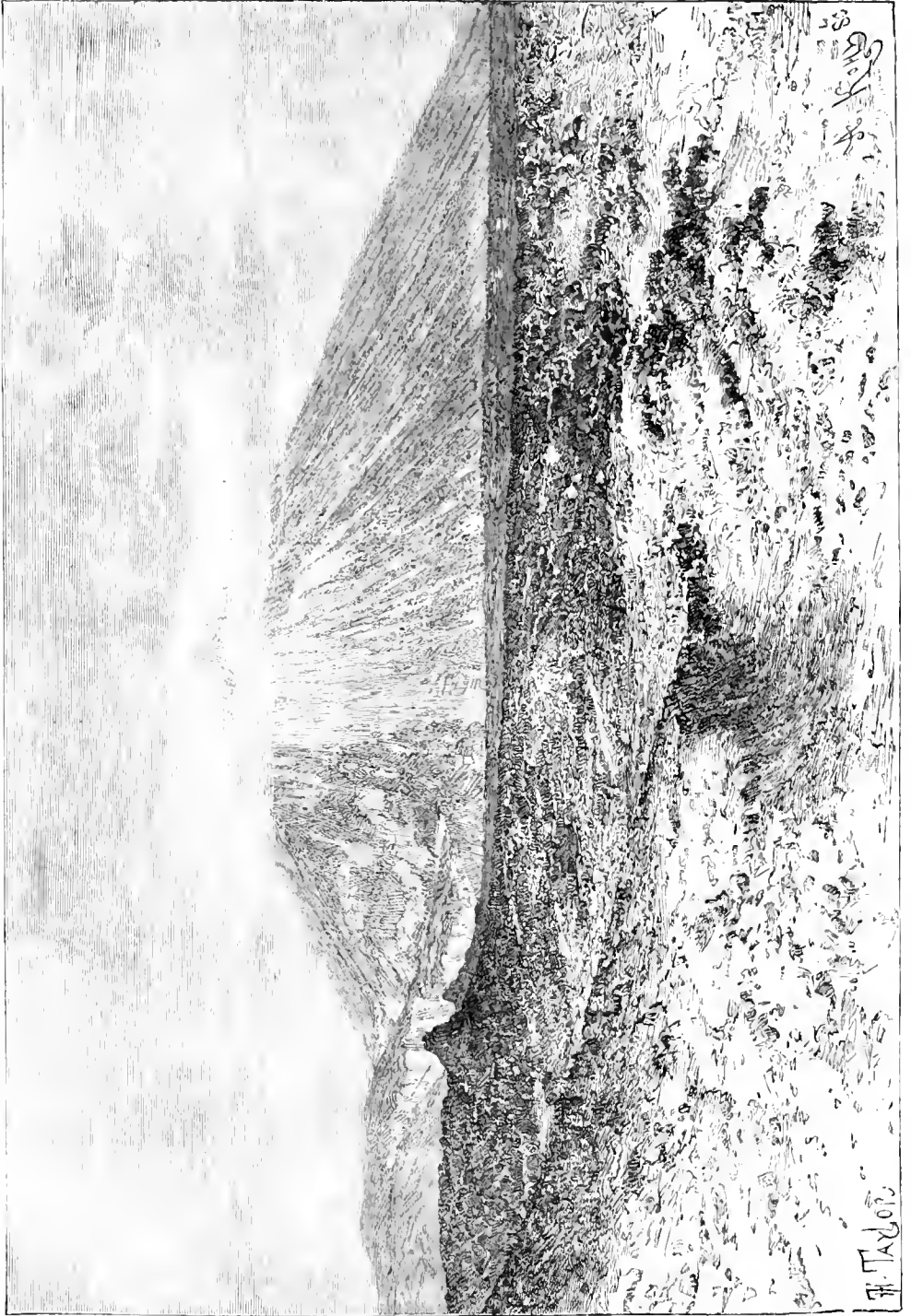
Sierra de Teno, dating from a primitive geological period, and consequently similarly eroded at its base by the sea. Between these two sections towers the lofty cone of the comparatively recent volcano, larger than both the other systems combined, and connected with them by lava-streams and intervening volcanoes. The juxtaposition of three independent groups belonging to successive ages has imparted to Teneriffe a general aspect very different from that of the other islands belonging to the same geological epoch. Instead of developing a circular contour like Gran Canaria, Gomera, and so many other islands of like origin, Teneriffe has the outlines of an irregular triangle, the apex of which belongs to recent and the other two angles to older formations. It is thus an Atlantic Trinacria, like the Mediterranean Sicily, the land of *Ætna*.

Most of the island consists of ashes and scorïæ with steep rocky escarpments. But it also presents some romantic valleys, all on the north slope, exposed to the trade winds, as well as some cirques whose rich vegetation presents a striking contrast to the gloomy walls of encircling lavas. Thanks to these productive oases of verdure, Teneriffe is able to support a relatively dense population, although its chief resources, wine and cochineal, now yield but slight returns.

The hills, which begin in the north-east corner, near Cape Anaga, do not constitute a continuous chain, although their rocky peaks, one of which rises to a height of 3,420 feet, follow in succession from east to west as far as the plateau of Laguna. At the Anaga headland now stands a first-class lighthouse, and the plateau is crossed at a height of 1,870 feet by the main highway of the island between Santa Cruz and Orotava. The uplands of the Laguna terrace are interrupted by a sudden gap, beyond which the land again rises, developing a regular chain commanded by the heights of Guimar, and again interrupted by a profound depression. Beyond this depression stands a volcano which rose in 1705, discharging a stream of lava eastwards nearly to the coast. It is the first cone of the encircling wall, which develops a semicircle east and south of the Peak of Teyde, and which presents on a far larger scale the same aspect as the wall of *La Somma* round *Vesuvius*. It is the largest known formation of this class on the surface of the globe, having a total length of 33 miles and a height of over 6,700 feet, above which several of its peaks, such as *Azulejos* and *Guajarra*, rise to 9,000 feet and upwards. The concave side of the chain facing the peak of Teyde commands a plateau of lava and scorïæ lying some 1,000 feet lower down, while on the outer side all the narrow and deep crevasses of the crest, hence known as the *Circo de las Cañadas*, are disposed in deep barrancas descending in diverging lines to the coast. The western extremity of this system merges in a "mal país," or chaos of lavas strewn with volcanoes, one of which, the *Chahorra*, attains an elevation of 8,270 feet. Farther west the cones are so numerous that the intervening lava-streams ramify in all directions like a vast labyrinth. The outer edge of the mass rising above the Teno heights ends in the *Montaña Bermeja*, or "Red Mountain," whence was ejected a stream of lava in the year 1706. Thus recent lavas mark both extremities of the enclosure which encircles the base of the dominating volcano, the *Echeyde* of the old inhabitants, now known as the Peak

of Teyde. East of the central cone is the peak of Alta Vista (10,900 feet), where

FIG. 30.—PEAK OF TEYDE, TENERIFE. VIEW TAKEN FROM THE CANADAS OF THE GUANCHES.



in 1856 Piazzi Smyth established his observatory far above the clouds that veiled

land and sea, but in full sight of the fiery stars which darted their golden rays against the black vault of night.

Although far from being the loftiest peak on the globe, as was long supposed, the Peak of Teyde is none the less one of the grandest summits visible from the ocean. Amongst volcanoes it is unique for its height and isolation in the centre of the primitive crater above which it has risen, "a mountain built upon a mountain." It dominates by 5,680 feet the ruined cirque encircling it, and from its summits all other peaks in Teneriffe seem depressed. It is easy to understand the veneration with which it was regarded by the Guanches, whose most solemn oath was that taken in its name. When the explorer reaches the plateau whence the supreme cone rises 1,650 feet higher than Vesuvius, he perceives that what from below looked like forests was really formed by streaks of pumice, lines of red scorie, bands of black lavas, indicating a long series of eruptions continued through successive geological ages.

To the south stands the vast Pico Viejo crater, 10,500 feet high, still filled with semi-fluid scorie, like a huge caldron about to overflow. Although the great eruptions of Teyde are very rare, occurring not more than once in a century, symptoms of smouldering fires are constantly perceptible. The walls of the highest crater are covered with a snow-white efflorescence, whence are emitted jets of steam at a temperature of about 186° F. mixed with sulphurous gases and carbonic acid, but in such slight quantities that dense vapours are seldom seen to rise above the summit. Nevertheless, the temperature is sufficiently high to support animal life even at this great elevation, and on arriving at the summit the explorer is surprised to find the crater swarming with insects, such as flies and bees, and even swallows and a species of finch peculiar to the peak. But the gases are seldom sufficiently abundant to melt the snows which whiten the cone in winter. A grotto known as the Cueva del Velo ("Ice Cave") is every year filled with snow and ice, yielding a constant supply to the inhabitants of Orotava.

#### TOPOGRAPHY.

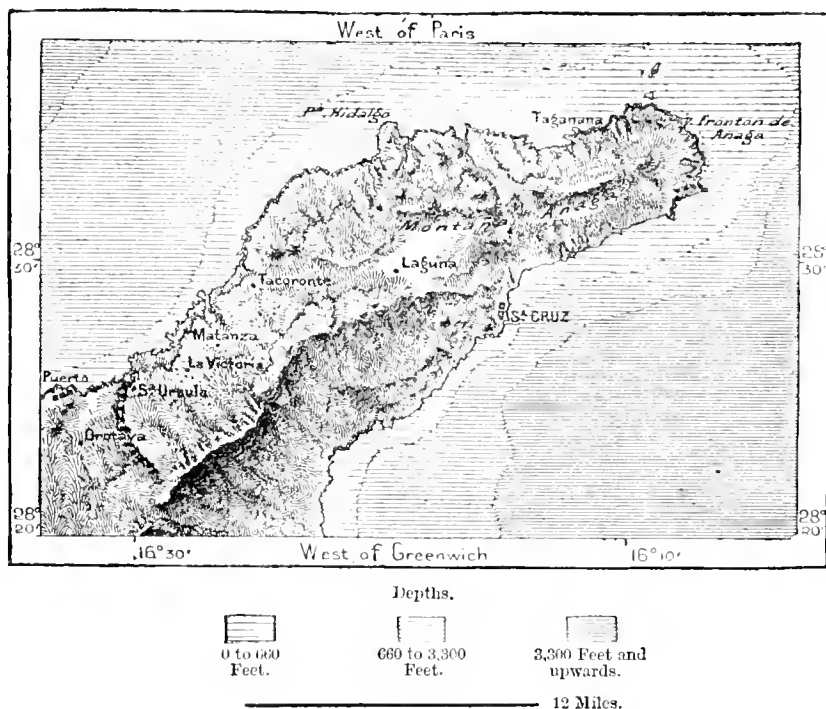
*Santa-Cruz*, capital of Teneriffe, the *Añaza* of the Guanches, rivals Las Palmas in trade and population. It lies on the north-east coast, where its little harbour is sheltered from the south winds by a breakwater which advances a few yards every year. On the plateau west of Santa-Cruz stands *Laguna*, the "Lake" town, which, however, has lost its lake since the rainfall has diminished through the reckless destruction of the surrounding forests. Laguna itself is in a state of decay; but the neighbouring villages of *Anaga*, and especially *Taganana*, occupying the most fertile and best-cultivated district in the island, enjoy a large measure of prosperity.

West of Laguna the main highway of the island, running in the direction of Orotava, is flanked by several flourishing towns surrounded by orchards and gardens. Such are *Tacoronte*, which possesses a museum of Guanche mummies, with arms and implements; *Sauzal*, where some lava quarries are worked, similar

to those of Volvic in Auvergne; *Matanza*, whose name recalls the "slaughter" of eight hundred Spaniards with their native auxiliaries; *Victoria*, where in 1495 the *adelantado* Lugo avenged his defeat of the previous year; *Santa-Ursula*, almost within sight of *Orotava*. This place, representing the ancient *Aratapala*, capital of the Amphictyonic council of all the kingships in the island, occupies the centre of a verdant cirque 3 miles from its port on the seacoast. During the flourishing period of the wine industry, when the famous vintages of malvoisie and "canary" were produced, this "puerto" was a very busy place, although possessing only an exposed roadstead. The sheltered harbour of *Garachico*, lying farther west on the same north coast, was nearly destroyed by an eruption from the *Montaña Bermeja*

Fig. 31.—NORTHERN EXTREMITY OF TENERIFFE.

Scale 1: 500,000.



in 1706. An unexplored cavern in the neighbourhood is said by the natives to communicate with the terminal crater of the volcano by a gallery nearly 9 miles long.

On the east slope of the island the town of *Guimar* occupies a position analogous to that of *Orotava* on the opposite side. In the neighbourhood are the *Cuevas de los Reyes*, or "Royal Caves," the most extensive sepulchral grottoes of the former inhabitants.

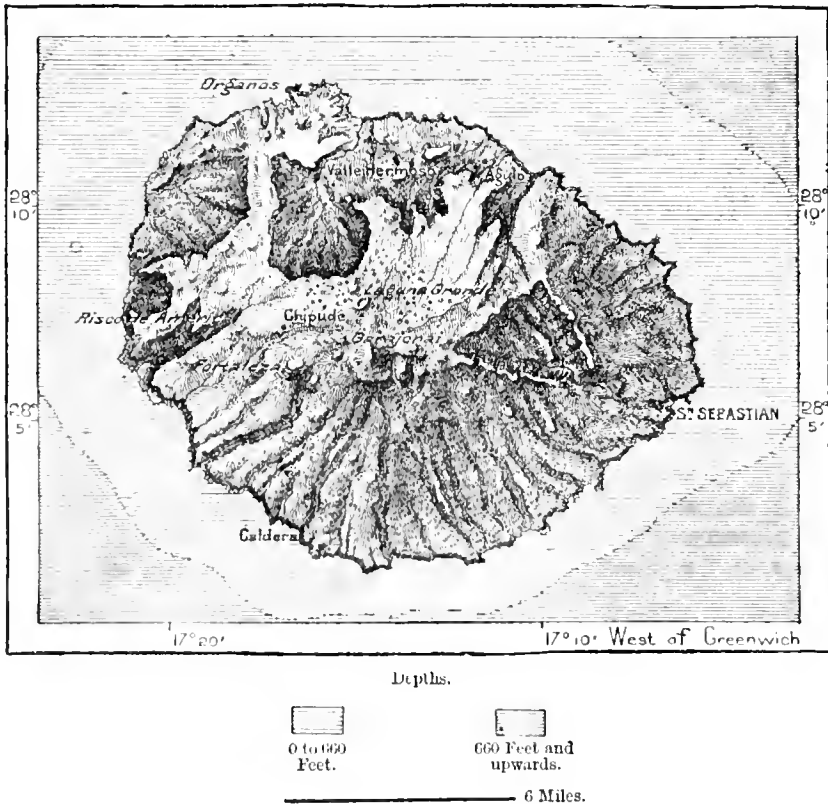
#### GOMERA.

*Gomera*, which has preserved its Berber name, is separated from Tenerife by

a strait 17 miles wide. Like Gran Canaria, which it resembles in miniature, it consists of a single volcanic cone, with a central peak and a nearly regular circular periphery indented by cirques. It is composed mostly of old lavas, whose craters have generally been obliterated, and in which the running waters have excavated deep barrancas and cirques, whence the streams escape through narrow precipitous gorges. The island has been eroded, especially on the west side; and while the cliffs facing Tenerife have an average height of from 300 to 400 feet, those over against Hierro rise to 2,000. Its forests are comparatively more exten-

Fig. 32.—GOMERA.

Scale 1: 330,000.



sive, and it is also better watered than Canaria. But although it might thus support a relatively larger population, it is less densely peopled, owing to the feudal system of tenure, which has been here maintained more oppressively than elsewhere in the archipelago.

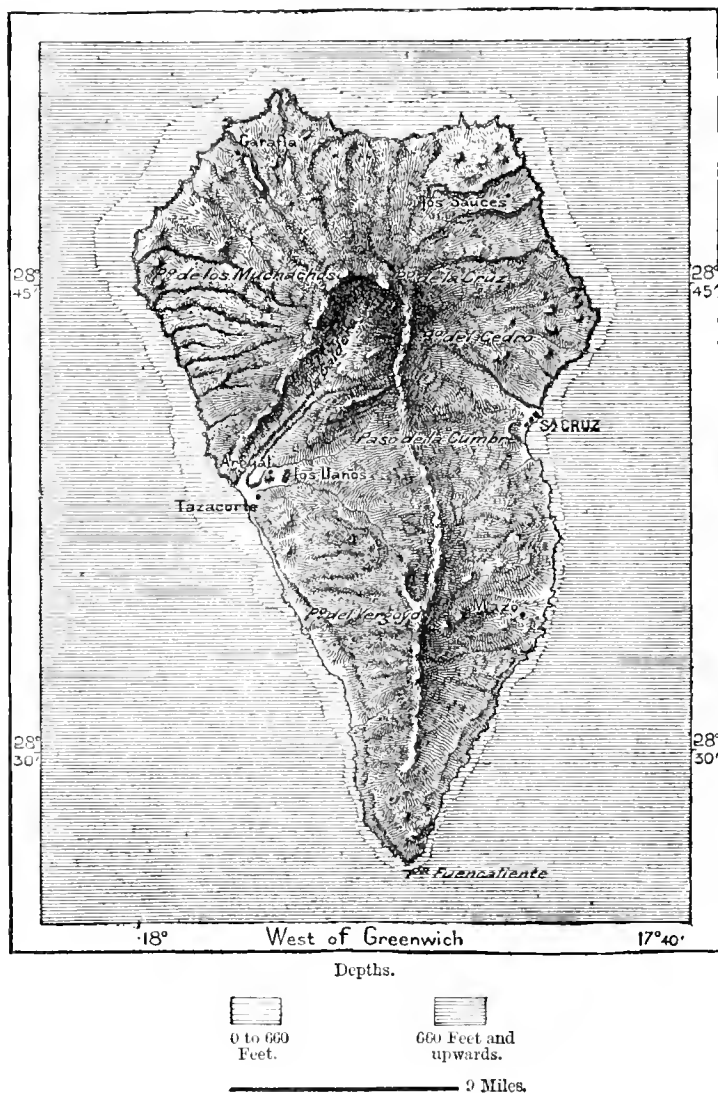
The Alto de Garajonar, culminating point of Gomera, stands on the southern edge of the central plateau, falling rapidly southwards to the coast, but on the other sides everywhere presenting gently inclined wooded slopes. Towards the west it terminates in a huge block, which seems shaped by the hand of man; hence is called by the natives the Fortaleza, or "Fortalice." North of the

Garajonai stands a perfectly regular crater, on the level bed of which the local militia musters for drilling purposes.

Of all the Canary islands, Gomera abounds most in cascades, thanks to its abundant waters and steep precipices. Near *Chipude*, the highest village in the island (4,000 feet), a rivulet falls 650 feet into the Argaga gorge, while the

Fig. 33.—PALMA.

Scale 1 : 500,000.



Agula cascade on the north side is visible from Teneriffe, a distance of 22 miles, whence it looks like a silver streak on an emerald ground. The forests, in some places destroyed by the charcoal-burners, consist mostly of laurels, often growing to a height of 80 or even 100 feet, and forming shady avenues, like the beeches and chestnuts of western Europe.



*San-Sebastian*, the capital, lies near the eastern angle of Gomera on a perfectly sheltered creek, surrounded by gardens and date-palms, yielding a fruit of exquisite flavour. The cirque of *Valle-Hermoso*, on the north coast, contains over ten thousand of these trees, the fibre of which is used for weaving mats, and the fruit for making palm-wine and honey.

## PALMA.

*Palma*, no less noted than Teneriffe for its romantic scenery, consists like it of different geological formations. The northern section, nearly round in shape, forms an isolated dome, in which occurs the most remarkable caldron-like formation in the world. The triangular southern extremity, of more recent origin, is constituted by a distinct chain of volcanoes, running in the direction of the meridian, and connected with the northern mass through the narrow ridge of the *Cumbre*, or "Summit."

Certain well-watered districts are extremely fertile, while the timber and fisheries are also highly productive. Hence Palma is one of the most densely peopled islands in the archipelago.

The highest summits, the Muchachos, Cruz, and Cedro peaks, rise above a semicircular ridge in the north, where the convex slope of the hills, scored by deep gorges, falls precipitously down to the sea. But on its inland side the amphitheatre of mountains suddenly develops a prodigious chasm about 9 miles round. This is the *Caldera*, or "Caldron," in a pre-eminent sense, whose steep walls fall abruptly to a depth of 4,000 feet down to the gently sloping grassy plains. Seen from below, these stupendous cliffs strike the spectator with amazement, the effect being much heightened by the contrast between the vast amphitheatre of diverse coloured rocks and the charming scenery at their feet. In the centre of this marvellous natural temple the natives formerly worshipped their gods, assembling on solemn occasions round about the "*Idafe*," a rock in the form of an obelisk, and offering it prayers and sacrifices. In their thoughts this rock doubtless typified the stability of their race, if not of the island and the whole world.

The ridge of *La Cumbre*, connecting the northern and southern mountain systems, is traversed at an altitude of over 1,670 feet by a fine carriage-road, which affords a means of communication between the populations of both slopes. The southern slope is dominated by the central peak of *Vergoyo*, which exceeds 6,700 feet. Numerous streams of black marble descend from the main ridge, both sides of which are strewn with cones and craters. Notwithstanding the wasteful habits of the people, pine forests still clothe a large part of the range, from the southern extremity of which flows the *Charco Verde*, a copious mineral stream frequented by invalids.

*Santa-Cruz de la Palma*, capital of the island, and centre of its trade and industries, lies on a little bay on the east coast. On the same slope are the villages of *Mazo* and *Los Sauces*, near the latter of which is the grotto which has become famous for its Berber hieroglyphics and inscriptions.

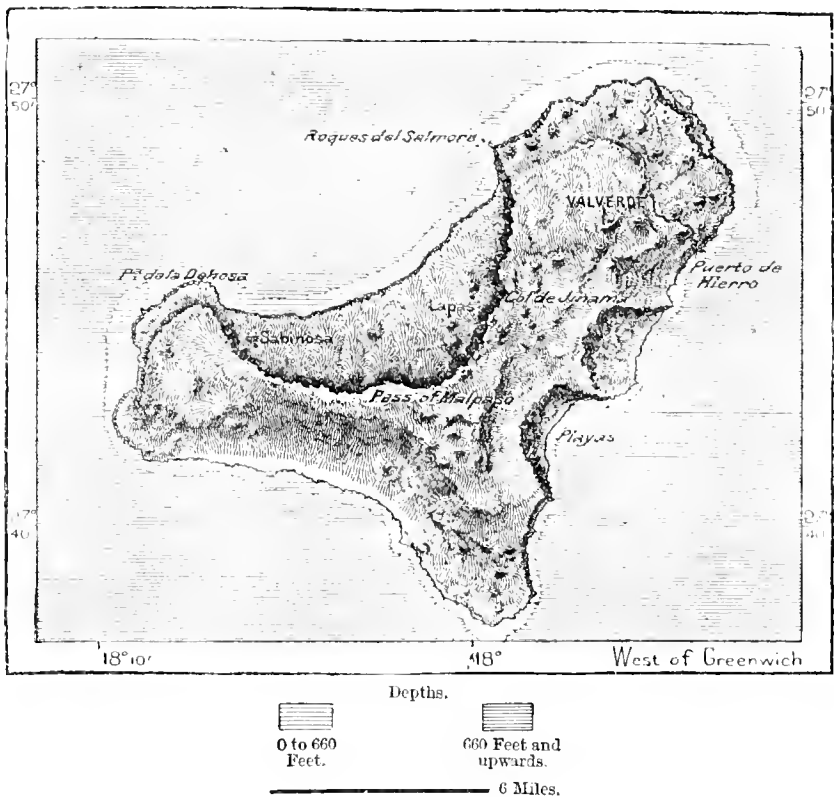
## HIERRO.

*Hierro* (*Ferro*, or "Iron"), smallest and least peopled, is also the most oceanic land of the archipelago. To the natives it was known by the name of *Esero*, which has been variously interpreted, but which had not probably the same meaning as its Spanish substitute. Hierro is rarely visited, and has little to offer strangers. But notwithstanding their great poverty, the natives are said to be the most hospitable and kindly of all the Canary islanders. The land is here more subdivided than elsewhere, although a single feudal lord is the nominal owner of the whole island.

Hierro is of triangular shape, with its apex turned towards Teneriffe, and its

Fig. 34.—HIERRO.

Scale 1 : 330,000.



base facing the Atlantic. But the elevated part of the island presents a somewhat fantastic appearance. In the north-west it is disposed in semicircular form by a steep cliff, the section of a perfectly regular crater. On one side this basaltic cliff terminates in a sharp point prolonged seawards by the Salmora reefs, on the other by the rounded headland of Delosa, where spars, fruits, and other flotsam from America are often washed up by the western currents. Towards the centre the cliff rises to a height of 4,680 feet above the sea.

The eastern plateau, still partly covered with forests, presents a somewhat analogous crescent formation, but with a much smaller diameter. Near it is the site of *Los Letreros*, where were found inscriptions and raised stones resembling the menhirs of Brittany.

Numerous craters and thermal springs are scattered over various parts of the island. One of the central craters is said to have emitted vapours during the first half of the present century; but Fritsch explored the ground in vain for some traces of this phenomenon. The famous laurel has also disappeared, which grew to the north-west of Valverde, and which was credited by the popular fancy with the faculty of sucking up and condensing the marine vapours, thus supplying enough water for the wants of eight thousand persons and a hundred thousand head of cattle.

*Valverde*, capital of the island, lies near the northern extremity, at an altitude of 2,180 feet above the sea. It communicates by zigzag paths with its port, the *Puerto de Hierro*, formed by a small creek on the east coast. In the neighbouring grottoes have been found numerous mummies of the ancient Bimbashas, or Ben-Bashirs.

Hierro has become famous as the point through which runs the line long accepted by some nations as their first meridian. Knowing no land beyond the Canaries, the Greeks naturally regarded them as the end of the world, and necessarily calculated the meridians from this extreme region of the known world. But after the discovery of other lands lying farther west, some geographers fixed their zero of longitude in the Azores, Mercator selecting Corvo, at that time crossed by the magnetic meridian. Nevertheless the Greek tradition long survived, and most cartographers drew their initial line through Teneriffe. But in consequence of a decision taken in 1634 on the advice of the most distinguished mathematicians, France officially adopted Hierro, which was supposed to lie exactly 20 degrees west of Paris. Fouillé in 1724 and others subsequently endeavoured to fix its position more accurately, but their determinations were not of accord. Now, however, it is known that Hierro does not lie 20 degrees west of Paris, and consequently that the meridian bearing its name does not touch the island, running in fact 12 miles farther east. Hierro is now no longer taken as the first meridian by any country.

#### ADMINISTRATION OF THE CANARIES.

The Canaries constitute a province of Spain, sending six deputies to the Cortes, and represented by two or three notables in the Senate. Santa-Cruz de Teneriffe is the residence of the civil governor and of the Captain-General of the archipelago, while Las Palmas is the seat of the High Courts. Trade is exempt from all customs dues beyond an impost of one-thousandth on imports and a slight tax on wines and tobacco. Each island contributes a small contingent to the army.

The archipelago is divided into ninety-three *ayuntamientos*, or communes, of which twenty take the title of cities or towns. The reader is referred to the Appendix for a table of the population of the islands and the chief urban communes.

## THE CAPE VERD ARCHIPELAGO.

These Atlantic islands bear a name for which it would be well to find a substitute; for it is justified neither by the geographical position, the geological constitution, nor the history of the group. They are distant at their nearest point no less than 280 miles from the African headland after which they are named, while the intervening waters are no less than 2,250 fathoms deep. Hence they are true oceanic lands, and in no sense natural dependencies of the continent. When the south-eastern group of the archipelago was first reached by explorers the cape had already long been known. Since that time—that is, over four hundred years ago—the first appellation has been maintained, so that no change could now be tolerated by all-powerful custom. Nor is there anything to justify the alternative expression Gorgades, or “Islands of the Gorgons,” for the text of Pliny referring to these fabled lands could scarcely be applied to an archipelago at such a distance from the coast known to the ancients. The Spaniards for a time called them the Santiago Islands, and the Dutch the Salt Islands, while on Juan de la Cosa’s chart they figure as the Antonio group, from one of the first discoverers.

This question of discovery has been much discussed. According to Major (*Life of Prince Henry of Portugal*) Diego Gomes was the first to reach the archipelago; but the passage relied on by this English author has been differently interpreted by other commentators. In his *Navigations* the Venetian merchant Cadamosto claims for himself and the Genoese Usodimare the honour of having discovered the islands of Bôa-Vista and neighbouring lands in the year 1456, and despite some real or apparent contradictions in his statement, he is probably entitled to this honour. Four years later the group was again visited by the Italian Antonio di Noli in the service of Portugal, who in a single day verified the existence of Maio, Sam-Thiago (“Saint James”) and Fogo, which last he named Sam-Felippe.

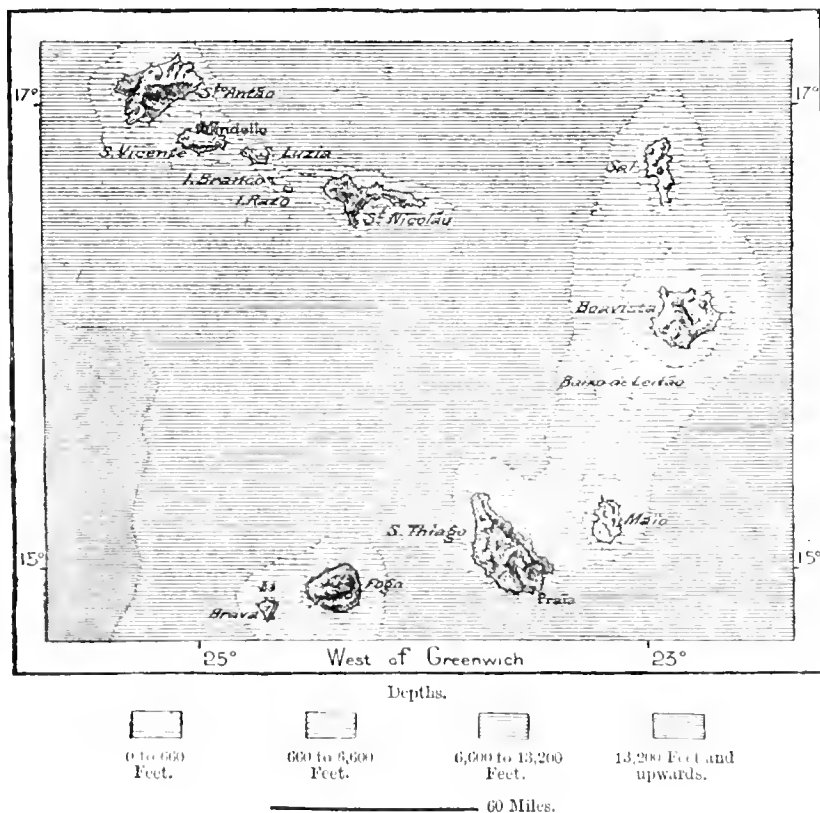
How or when the other members of the archipelago were first sighted and explored has not been clearly determined; but no doubt the work of exploration was rapidly completed by those who had received grants of the parts already surveyed. Nevertheless forty years after Antonio di Noli’s voyage, Sam-Thiago and Fogo had alone been occupied by small settlements. The others were peopled during the course of the sixteenth century by Portuguese colonists and Negroes imported from the neighbouring continent. But Salt Island remained unsettled till the present century, and certain islets are still uninhabited. Compared to the extent of the archipelago the population is slight, a fact due to the scarcity of water. With a total area of 1,450 square miles there were not more than 114,000 inhabitants in 1897, or about seventy to the square mile.

The archipelago is disposed in irregular groups, forming a large curve of some 300 miles, with its convex side turned towards the African mainland. This curve begins in the north-west with Santo-Antam, which is the second largest member of the archipelago. It is continued south-eastwards by Sam-Vicente (Saint Vincent),

Santa-Luzia, Ilheo Branco, Ilheo Razo, Sam-Nicolau, whose hills or mountains all run in a direct line, thus constituting quite a separate group, which from a distance looks like a single island indented with deep inlets. Farther east Salt and Boa-Vista, continued south-westwards by the Bank of Joam Leitao, form a second group at the eastern verge of the semicircle. Lastly the southern section comprises Maio, Sam-Thiago, Fogo, Brava, and a few islets. All the northern islands, including Salt and Boa-Vista, take the collective name of Barlovento, or "Windward," the four others that of the "Leeward" Islands.

Fig. 35.—CAPE VERD ISLANDS.

Scale 1 : 3,640,000.



The Cape Verde archipelago seems to belong to an older geological epoch than the almost exclusively volcanic Canaries and Azores. All the islands have no doubt their craters and eruptive rocks, while Santo-Antão and Fogo consist exclusively of scoriae and lavas. But in the others are also found crystalline rocks, granites, syenites, and "foyaite," so called from Mount Foya in Algarve. Fine metamorphic marbles and sedimentary rocks also occur, and Maio is especially remarkable for the relative extent of its non-igneous formations, a fact which certainly favours the theory of an Atlantic continent formerly occupying these waters.

The archipelago also differs from the Canaries and Azores in the generally quiescent state of its volcanic forces. With the exception of Fogo, none of the craters have been in eruption since the discovery, and earthquakes are also rare, no violent shocks having been recorded, except in Brava, at the south-west extremity of the semicircle. Iron abounds, especially in the southern group, where an extremely rich titanate of iron occurs on the coasts in the form of black sand, and in such quantities that, when heated by the solar rays, even the Negroes do not venture to tread the ground. Countless cargoes of iron ore might here be shipped.

#### CLIMATE.

As in the other Atlantic groups, the mean temperature, equalised by the surrounding waters, is less elevated than on the African continent under the same latitude. At the observatory of Praia, in Sam-Thiago, it was  $75^{\circ}$  F. in 1877, the two extremes in the same year showing a difference of  $30^{\circ}$ : hottest day, September 9th,  $91^{\circ}$  F., coldest, December 13th,  $61^{\circ}$  F. The neighbourhood of the African coast and the influence of the east wind explains this wide range. The climatic conditions are almost exclusively determined by the atmospheric currents, on which depend the heat, moisture, and salubrity of the air. When the north-east trade winds prevail, that is, from October to May, the sky is clear except at sunrise, when the eastern horizon is always overcast. Then follows the wet season, from June to September, during which the land is watered by heavy showers, "as necessary to the inhabitants as are the waters of the beneficent Nile to the Egyptian fellahin." But the rains and accompanying storms are less regular than on the mainland under the same latitudes, and at times the moisture is insufficient to water the crops, and then the inhabitants are decimated by famine. Sometimes also the north-east trade wind is deflected to the continent, whence it blows over the islands like the blast of a hot furnace. It then takes the name of *leste*, that is, "east wind," which is the *harmattan* of the Arabs.

From the desert this wind brings a large quantity of sand, which is deposited on the islands in the form of impalpable dust. These dust storms may occur at any time, except perhaps in the months of August and September, that is, the season of calms, of variable winds and of heavy showers brought by the sea-breezes. The archipelago lies well within the zone of "dry rains," which extends between  $9^{\circ}$  and  $16^{\circ}$  N. latitude to a distance of 1,200 miles seawards from the African coast. Helmann's observations show that this phenomenon of yellow and red sandy clouds lasts at times several days, and prevails over a space of some 120,000 square miles. To supply such a prodigious quantity of powdered rock extensive mountain ranges must have been worn away during the course of ages, whence the present aspect of certain hamadas, or stony wastes, in the Sahara, which for vast spaces offer nothing but smooth polished rock swept clean by the east wind. Some of the dust clouds mingled with animalculæ appear to blow with the counter atmospheric currents from South America, but there can be no doubt that the great mass of these sands comes from the African desert.

The general salubrity of the islands is in many places affected by the presence of swampy tracts and stagnant waters, producing dysentery and marsh fever, especially on the coast of Sam-Thiago. The evil is largely due to the reckless destruction of the forests on the hillsides, which causes the rains to run off rapidly from the surface of the uplands and to lodge in the depressions on the lower grounds. The slopes might, however, be easily replanted, as shown by the results of several essays in this direction. Some of the upland valleys in the higher islands, rising 3,000 and even 6,000 feet and upwards above the sea, also present favourable sites for health resorts.

#### FLORA.

The indigenous flora of the archipelago has not yet been studied with the same care as that of the other Atlantic groups. This is partly due to the greater distance from Europe, and partly to the somewhat inaccessible nature of many districts. Saint Vincent also, where nearly all strangers land, happens of all the islands to be most destitute of vegetation, consisting, in fact, of little more than bare rocks and scoriae. Although one of its hills takes the name of Monte Verde, it has little to show except a few tamarisks, and in 1880 the whole island contained only two trees, both exotics, an eucalyptus and a barren date-palm. Salt, Boa-Vista, and Maio present the same arid aspect, but the mountainous lands, especially Santo-Antam and Sam-Thiago, offer in many places verdant valleys, due entirely to the introduction of African plants. Not a single tree appears to be here indigenous, even the dracœna having probably been imported from the Canaries, or from the neighbouring continent. At present Sam-Thiago possesses some baobabs and other Senegambian trees; but, although lying under the same latitude as the West Indies and Sudan, the archipelago nowhere presents the splendour of the tropical flora.

Excluding the cultivated plants of recent introduction, the known species number about four hundred, of which not more than one-sixth forms the original stock of the islands. The native types are essentially Atlantic, and allied rather to those of the temperate zone, presenting in this respect a much more northern aspect than might be supposed possible from their tropical position. Canarian types are also somewhat numerous, especially in Santo Antam and the other members of the Windward group. But most of the exotics come from Africa, whereas those of the Canaries are mainly European. Nevertheless, some Mediterranean species also occur on the uplands, especially on the hilly districts of Santo-Antam and Sam-Thiago.

#### FAUNA.

The aboriginal fauna comprises but few distinct species. The monkey, seen only in Sam-Thiago and Brava, belongs to the *Cercopithecus Sabæus* family of the African continent. Nor do the wild boars of the Sam-Thiago thickets constitute a separate variety; while all the other mammals, whether domestic cattle or noxious

animals, such as rabbits and rats, have been introduced from Europe. The guinea-hen, which the natives do not eat, is extremely common, and the sea-mew whirls in clouds above the strand and reefs. Some of the islets are covered with thick deposits of guano, forming a valuable resource for the peasantry of the neighbouring islands. Wollaston asserts that snakes are found in some places, but this is denied by the natives, and Doelter failed to discover any.

Ilheo Branco, the "White Island," an islet in the north-west group between Santa Luzia and Sam-Nicolau, is distinguished from all the others by a peculiar fauna. Here are large lizards (*Macroserrus coctei*) elsewhere unknown, which live on a vegetable diet, not on insects like their congeners elsewhere. The puffins here discovered by the members of the *Talisman* expedition also constitute a new variety of this bird. The islet has not yet been completely explored, but even should nothing further be discovered, the existence of two original species in such a microcosmos is one of the most curious facts in natural history.

The surrounding waters are well stocked, and a single haul of the net on a bank teeming with life suffices to capture thousands of fishes. Even in the lower depths marine organisms are scarcely less abundant. From 2,000 feet below the surface the fishing-gear of the *Talisman* brought up about a thousand fish and nearly two thousand prawns of different species. These resources would be ample for the local wants and for a large export trade, but for the fact that a very large number of the animals in these tropical seas are poisonous. Crustaceans, gasteropods, and molluscs also abound, as well as two species of coral, the *Corallium rubrum* like that of Sicily, and the *Plemocorallium Johnsoni*, a white variety, so named by the explorers of the *Challenger*. Some Neapolitans settled in Sam-Thiago are engaged in the coral fishery, which has become an important local industry.

#### INHABITANTS.

The Portuguese are traditionally said to have found two indigenous blacks when they landed on Sam-Thiago. Feijo also states that some Wolof Negroes, escaping from their enemies, were borne by the currents and winds to the large island, which they peopled. But such a voyage would have been little short of miraculous, for the Wolofs never possessed any craft beyond open canoes, while in these waters the winds and currents move southwards; nor do any contemporary chronicles speak of the islands being inhabited when discovered. The first settlers were undoubtedly some free Portuguese and Negro slaves.

In 1461 some families from Alentejo and Algarve accompanied the feudatory lords to whom the islands had been granted as fiefs. But the great bulk of the immigrants, who settled first in Sam-Thiago and Fogo, were Wolofs, Felups, Balantos, Papels, and other Negroes, captured on the neighbouring mainland. In 1469 an exclusive monopoly of the slave trade was granted to the local feudatories by Alfonso V., in consequence of which the neighbouring coast became a hunting-ground where the landowners procured the slaves required for their plantations.

The tropical heats, the distance from the mother-country, the degradation of



labour through the employment of slaves and convicts, have hitherto prevented all Portuguese immigration properly so-called, and for four hundred years the only whites in the archipelago have been officials and landowners. Nevertheless some crossings have taken place, and although the population consists almost exclusively of coloured people, there has been a gradual approach to the white type. In general the natives have regular features, with straight prominent nose, slightly crisped hair, and very open facial angle. The men are of tall stature and of noble carriage, the women, at least in Santo-Antam, of handsome figure and features. But great differences are observed in the different islands, which must be attributed to the varying degree of mixture and of European culture, to the diverse pursuits, such as fishing, agriculture, trade, and so forth.

In prosperous times the population increases rapidly, the annual excess of births over deaths being more than a thousand. Notwithstanding frequent droughts attended by terrible famines, the number of inhabitants rose from sixty thousand to a hundred and fourteen thousand between the years 1844 and 1897. Yet epidemics have at times been scarcely less destructive than the famines, and when the cholera passed like a flaming sword over Sam-Nicolau, some villages were completely depopulated. The dead remained for days unburied in the streets of the capital, and houses are still shown which have ever since remained untenanted.

All the natives call themselves Catholics, and are held as such, baptism having brought them nominally within the pale of the Church. Each island has its temples and priests, mostly men of colour, who are preferred by the "faithful," because they interfere less with the pagan rites introduced from Africa. Many devout Christians still believe that the *feiticeiros*, that is, "fetish men" or wizards, have the power of making themselves invisible, of poisoning air and water, of spreading blight and disease over plants, animals, and men. Against their fatal power appeal is made to the *curandeiros*, or "medicine men," at times more formidable than the fetish men themselves.

At Saint Vincent European customs are steadily gaining ground, but many African usages still linger in the other islands, and especially in Sam-Thiago, where the Negro element is less mixed than elsewhere. The bride has still to be carried off by a feigned show of abduction. At funerals, especially when the death is attributed to the spells of a magician, the traditional ceremonies of the *guisa* are scrupulously observed, a procession of howlers preceding the dead, the women tearing their hair and beating their breasts, men creating a tremendous din with their tom-toming, after which the virtues of the departed are commemorated by a funeral banquet and by more drum-beating, continued every night for one or more weeks afterwards in his late home.

As in the other Atlantic archipelagoes the system of large estates still prevails, the land seldom belonging to the tiller of the soil, except in Brava. Many domains are so extensive that their limits are unknown to the owner, and vast tracts lie fallow remote from all human habitations. Other properties are assigned to owners who are unable to produce any valid title-deeds, resting their claim exclusively on tradition. One third of Sam-Thiago, largest and most densely peopled of

the whole archipelago, belongs to a single proprietor, whose tenants and retainers number some three thousand. Many estates, however, have gradually passed by inheritance from the first European concessionaries to their half-caste descendants; hence the land to a large extent now belongs to men of colour, the offspring of slaves in the female line. Although the final measures for the abolition of slavery date only from 1857, the last slave having disappeared in 1876, complete social equality is already established between men of all colours. A certain number of *degradados*, or convicts, are however transported to all the islands except Saint Vincent; in 1897 they numbered altogether over a hundred.

#### PURSUIITS, AGRICULTURE, INDUSTRIES, TRADE.

During the early period of the occupation the archipelago was utilised almost exclusively for stock-breeding. The cattle, swine, sheep, and especially goats, let loose in the interior increased rapidly, and the first settlers were almost solely occupied in grazing their herds, or capturing the animals that had run wild. The horses, introduced from the Mandingo country, Senegambia, also prospered, and since the middle of the sixteenth century began to be re-exported to the neighbouring continent. Although not shod, these horses climb the rocks with a sure foot like goats. The asses, originally from Portugal, resemble those of the mother country, and are almost exclusively used as pack animals. Many that had lapsed into the wild state were hunted down like game during the great famine of 1831, and those that were not taken and eaten died of thirst, so that the race was completely exterminated. The same fate has overtaken the destructive rabbits which had been imported into Sam-Thiago.

Notwithstanding the arid appearance of Saint Vincent and some other islands, much of the land has been brought under cultivation, the volcanic soil yielding excellent crops of all sorts whenever the rainfall is sufficiently copious. The chief cultivated plants are manioc, maize, haricot beans, and especially the *Jatropha curcas*, a medicinal plant of such powerful purgative properties that it is no longer used in the European pharmacopœia. But the seed and oil are still largely exported for industrial purposes.

Industry, properly so called, is little developed in the archipelago. The dyeing of textile fabrics for the Negro populations of the continent is carried on especially in Sam-Nicolau, and Brava produces some lacework and highly esteemed woollen coverlets. But the natives have a more natural bent for trade; every village has its shops, and a brisk interchange of commodities is kept up between all the islands. Bôa-Vista, Sal, Maio export salt, building stone, and goatskins, while Santo-Antam supplies the neighbouring Saint Vincent with wood and water. International trade is centred almost exclusively in Porto-Grande and Saint Vincent.

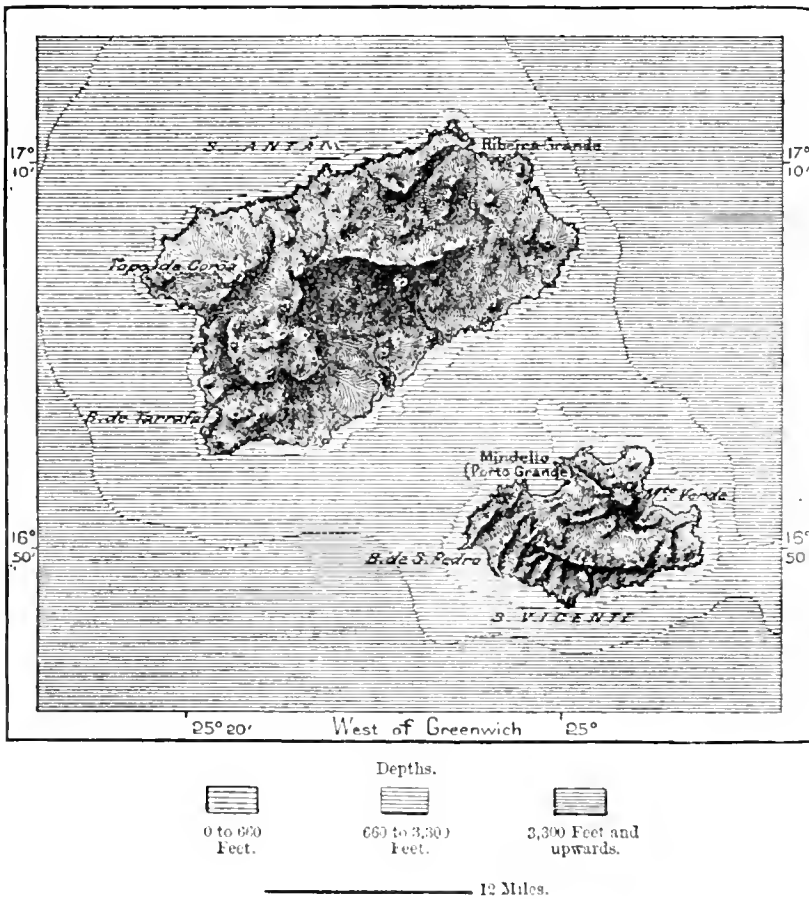
#### TOPOGRAPHY.—SANTO-ANTAM.

*Santo-Antam* (Saint Anthony), the large island of nearly regular quadrilateral shape at the north-west extremity of the semicircular curve, is the privileged

land of the archipelago. Traversed by a lofty range in the direction from north-east to south-west, it presents its north-west slope to the trade winds, which in these waters are nearly always deflected towards the continent. Hence this slope receives an ample rainfall, which supports a vigorous vegetation in the valleys. The population, which increases rapidly, might be doubled or trebled without exhausting the agricultural resources. But the opposite slope, which receives little moisture, is arid and almost destitute of vegetation. Here little meets the eye

Fig. 33.—SANTO-ANTAM AND SAM-VICENTE.

Scale 1 : 730,000.



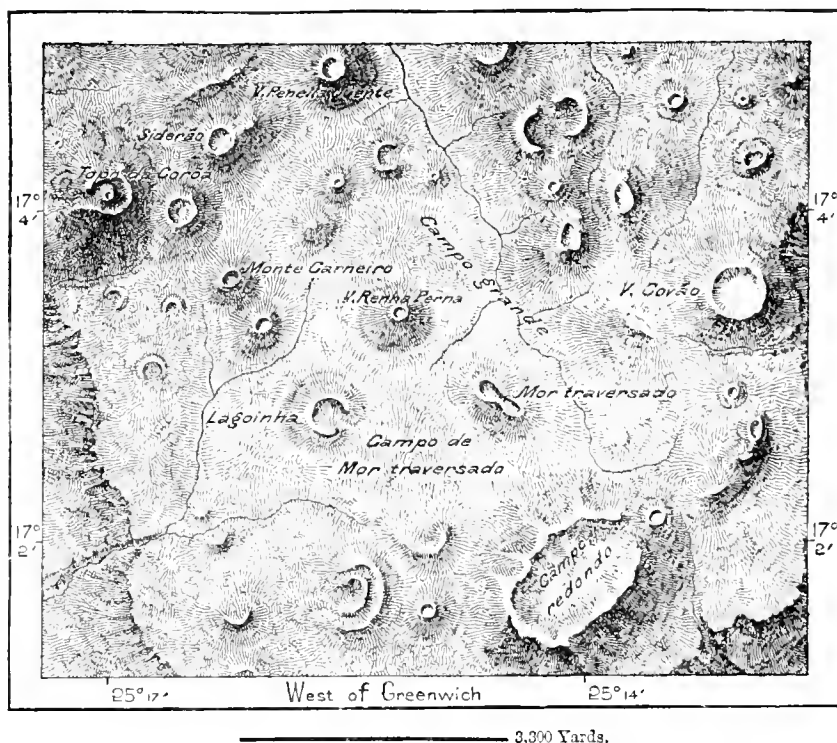
except blackish rocks, red clays, and white pumice scoring the hillsides like streaks of snow. Volcanic cones with craters are dotted all over the island as thickly as on the flanks of Mount Etna. Over twenty are visible to ships rounding the north-east cape to enter the port of Saint Vincent. The main range terminates westwards in the Topo da Coróia, the culminating point of the island, with a crater on its summit, according to the marine charts 7,520 feet high. Its flanks are scored right and left by deep ravines, and on the west side it falls abruptly

down to the sea. But eastwards it towers above a vast plateau which has a mean altitude of 5,450 feet, and which is covered with volcanic cones, some isolated, some disposed in groups or chains, some with perfect circular or oval "caldrons," others rent and torn on one side and presenting the so-called "spoon" or "ladle" formation. Doelter, the geologist, regards this upland plain as an old bed of a vast crater, where the Topo da Corôa represents the Vesuvius of a great circular Somma, of which the jagged outlines may still be traced.

Santo-Antam was first occupied in the middle of the sixteenth century, when slave labour was introduced. The first white colonists, including a number of

Fig. 37.—PART OF THE VOLCANIC PLATEAU IN SANTO-ANTAM.

Scale 1 : 85,000.



Canarians, made their appearance towards the close of the last and beginning of the present century, and successfully introduced the cultivation of wheat on the upland slopes. In 1780 the slaves in Santo-Antam were declared free; but the decree passed unheeded, and the honour of their emancipation was reserved for a later generation. The inhabitants, nearly all coloured, but sometimes with light hair and blue eyes, are grouped chiefly in some villages near the north-east coast, and in the little town of *Ribeira Grande* on the same coast. On the neighbouring hills, from 3,000 to 4,000 feet high, the cultivation of cinchona has been introduced with great success; nearly a thousand trees had already been planted in 1882.



GENERAL VIEW OF PORTO-GRANDE, ST. VINCENT ISLAND.



## SAINT VINCENT.

*Saint Vincent* (Sam-Vicente) is a geographical dependence of Santo-Antam, which, being larger and higher, almost completely deprives it of the moisture brought by the north-east trade winds. Hence it almost everywhere presents a parched and arid appearance, the whole island possessing only one or two small springs and a single valley capable of cultivation. No attempt was made at a settlement till 1795, when some Negro slaves and white convicts were introduced; but even in 1829 the population was still no more than about a hundred. Yet Saint Vincent was known to possess the best harbour in the archipelago, formed by an ancient crater eroded on the west side by the waves, and completely sheltered from all winds.

The future commercial importance of this harbour had already been foreseen in 1851, when an English speculator here established a coaling station for passing steamers. The small town of *Mindello*, better known under the names of *Porto-Grande* and *Saint Vincent*, soon sprang up on the east side of the haven. But it is a dreary place of residence, treeless and waterless, the inhabitants being obliged to drink distilled sea-water, or water brought in boats from Santo-Antam. Nevertheless, here is concentrated nearly all the trade of the archipelago, and the port is yearly visited by hundreds of Atlantic steamers to renew their supply of coal. In the foreign trade of the archipelago the first position is taken by the English, who import all the coal. Mindello has become an international seaport, in which the English language prevails, and in which the number of annual visitors is twenty times greater than the local population. Saint Vincent is also the intermediate station for the Atlantic cable between Lisbon and Pernambuco.

## SAM-NICOLAU.

East of Saint Vincent follow *Santa Lucia*, occupied only by shepherds, the desert islets of *Branco* and *Razo*, and a little farther on the large island of *Sam-Nicolau*, which about the middle of the last century was already well peopled. The first census of 1774 showed a population of 13,500—more than at present; the decrease being due to a series of calamities, famine, yellow fever, cholera, following one on the other. In normal times, however, the birth-rate greatly exceeds the mortality.

Sam-Nicolau presents the form of an irregular crescent, one of its horns projecting eastwards, the other towards the south. Like all the other members of the Cape Verd group, it is covered with volcanic rocks, disposed either in isolated cones or continuous ridges, and culminating in the north with Mount Gordo, 4,000 feet high. Here is the central point of the whole archipelago, the summit, easily reached even on horseback, commanding in clear weather a complete view of all the islands from Sam-Antam to Fogo. From the south side of Gordo flows a copious stream, which, however, like several other rivulets, disappears in the scorice. Owing to the lack of communication, no attempt has been made to utilise

these supplies, and for the same reason few local craft visit the surrounding creeks, most of which are entirely deserted.

The first capital was situated on the port of *Lapa*, at the extremity of the southern headland; but during the temporary annexation of Portugal to Spain under Philip II. this place was abandoned for the present town of *Ribeira-Brava* on the south-east side. Notwithstanding the fevers which at times visit this part of the coast, nearly half of the population is now centred in *Ribeira-Brava*, which has become one of the chief towns in the archipelago, and the centre of the most active local traffic. It exports maize, manioc, and sugar, but coffee, formerly an important industry, has ceased to be grown. Nearly all manufactured goods and foreign produce are introduced through Saint Vincent from England and the United States. In 1867 *Ribeira-Brava* was chosen, thanks to its central position, as the seat of the Lyceum, the first educational establishment in the archipelago.

#### SAL, BÕA-VISTA, AND MAIO.

*Sal* (Salt) and *Bõa-Vista*, forming the eastern group, have almost a Saharan climate, and are consequently but thinly peopled. Although nearly 120 square miles in extent, *Sal* remained unoccupied from the time of its discovery till 1808, when a few slaves with some flocks were introduced from *Bõa-Vista*. But no regular settlement was made till 1830, when the excellence and abundance of the salt beds attracted the attention of speculators. Cisterns were constructed to husband the rain-water, and some industrial colonies sprang up round about the salt-pans. The railway laid down in 1835 from the chief saline to the coast was the first opened in any part of the Portuguese dominions.

*Sam-Christovam*, since the end of the fifteenth century known as *Bõa-Vista* ("Bellevue"), scarcely deserves this title. Like *Sal*, it lies low, is nearly treeless, has no running waters, is encircled by a dangerous reef-bound coast, and covered with shifting dunes "from the Sahara," as the natives say. Stock-breeding and the salt-works are almost its only resources, and its capital, *Salrey*, although enjoying the advantage of a well-sheltered harbour, is little visited. Since American vessels have ceased to call here for salt the population of the island has declined.

*Maio*, consisting mainly of sands, clays, and bare rocks, is little more than a convict station. Its few Negro inhabitants work the salt-pans on the beach, and also occupy themselves with fishing and grazing. But they would run the risk of being starved out were they not supplied with provisions from the neighbouring *Sam-Thiago*.

#### SAM-THIAGO.

Largest and most populous island in the archipelago, *Sam-Thiago* (St. James) is also specially distinguished by the fertility and high state of cultivation of its valleys, which yield good crops of maize, haricots, rice, bananas, oranges, and sugar. The surface is hilly, culminating near the centre with the Pico da Antonia, about 6,000

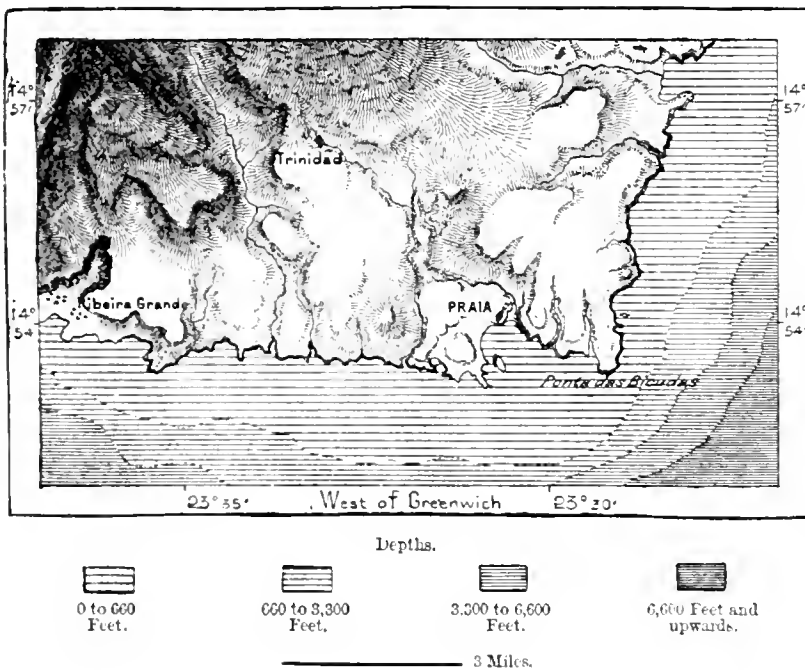


feet, a ruined volcano, which falls abruptly southwards. Some of the eruptive rocks are of submarine origin, and the surrounding waters are of great depth, the sounding-line revealing abysses of 1,260 fathoms within 4 miles of the coast.

Of *Ribeira-Grande*, the former capital, little remains except its name. It was badly situated on a small pebbly stream, with a hot southern aspect, cut off from the refreshing northern breezes by the inland mountains. But although captured and nearly ruined by the French in 1712, it still retained the official title of capital till the year 1770, when it was replaced by *Villa da Praia*. This place lies on a semicircular bay on the south-east coast exposed to the south winds, and a meteorological observatory has here been established. There is a small natural history

Fig. 38.—PRAIA.

Scale 1 : 200,000.



museum, and Praia is also an important telegraphic station, forming the intermediate station for the Atlantic cables between Europe, Senegambia, and the New World.

#### FOGO AND BRAVA.

The island of *Fogo*, or "Fire," is of circular form, and, like Gran Canaria and Gomera, consists of a single eruptive mass, culminating in the centre with the volcano of Fogo, which according to Vidal and Mudge has an altitude of 9,950 feet. The crater, about 3 miles in circumference, lies within another crater, and the peak is visible 90 miles seaward.

This island, formerly known as Sam-Felippe, did not receive its present name

till 1680, when the settlers were so terrified by an earthquake followed by eruptions of lava that many took refuge in the neighbouring island of Brava. Other violent igneous disturbances ensued, such as those of 1785 and 1799, when copious lava streams overflowed down to the coast and entirely filled up a valley covered with rich plantations. The smouldering fires continued down to 1816, when the smoke disappeared and the natives were able to extract the sulphur accumulated in the interior of the crater. Underground convulsions were followed by long droughts and famines, through which the population fell from over 16,000 to less than 6,000 in 1834. But such is the fertility of the volcanic soil and the excellence of its produce, that the disasters are soon repaired and fresh plantations rapidly spring up above the old cultivated tracts. At present Fogo is the most populous island in the archipelago, next to Sam-Thiago and Santo-Antam, and the white element, mostly from Madeira, is relatively very numerous. *Sam-Felippe*, the capital, lies on an open roadstead on the west coast, over against Brava.

*Brava*, or the "Wild," has long ceased to deserve this appellation. Being the healthiest, best-cultivated, and pleasantest member of the whole group, it is often now spoken of as the "paradise of the Cape Verd archipelago," in contrast to the four "hells" of Saint Vincent, Sal, Bõa-Vista and Maio. But for two centuries after the occupation its only inhabitants were some runaway slaves from the other islands, supporting themselves by fishing and grazing. The population was suddenly increased by the disaster of Fogo in 1680, and as the land was then distributed in small independent holdings, Brava became the garden of the archipelago.

The natives are a cross-breed, distinguished from those of Fogo by their taller stature, fairer complexion, and features that have been compared to those of a goat. They are industrious tillers of the soil, good fishers and daring mariners. The Americans, whose chief fishing station is in Brava, employ many on board their whalers.

*Furna*, the small but well-sheltered port of the island, lies on the east side, opposite Sam-Felippe in Fogo. On the west coast lies the chief town, *Sam-Joam Baptista*, whither the officials of the other islands often retire to recruit their health.

The two islets of *Ilheos Seccos*, north of Brava, are uninhabited.

#### ADMINISTRATION.

The Cape Verd archipelago is divided into two administrative districts: the Windward and Leeward Islands, comprising altogether eleven *concelhos* and twenty-nine *freguezias*, that is, "parishes" or communes. The *concelho* is represented by an elective municipal body, the *administrador*, or mayor, being nominated by the government. A provincial council, to which the municipalities send two members, co-operates with the governor-general of the province, who is also assisted by a chamber of finance and a government council consisting of the chief administrative functionaries. The governor-general, nominated by the Crown,

combines in his own person the civil and military functions, and when absent is represented by a secretary-general. Each concelho has its ordinary tribunal, two courts of appeal being also established in Santo-Antam and Sam-Thiago.

Although forming a remote colonial possession, the archipelago is represented in the Lisbon Cortes by two deputies, elected by a limited suffrage in the two provincial districts.

For a table of the islands, with their areas, populations, and chief towns, see the Statistical Appendix.





### CHAPTER III.

#### SOUTH-WEST AFRICAN ISLANDS.

**I**NSULAR groups are rare in the Guinea waters, although until recently the marine charts were liberally dotted over with phantom lands, which seafarers had observed on the horizon and mistaken for islands or reefs. It was even supposed that continental coastlines formed a southern fringe to the ocean furrowed by vessels sailing from Portugal towards India. Ptolemy's hypothesis of a "great Austral land," connecting South Africa with an eastern extension of Asia, had been revived by the cartographers of the sixteenth century, and modified in accordance with more recent discoveries. This Austral region was traced by them from South America along the southern limits of the oceans round the whole periphery of the globe. Then, with the progress of southern exploration, this coastline became broken into fragments, and on Homann's chart, published in 1722, a "Land of Life," fringed by a whole archipelago of islets, forms the southern boundary of the South Atlantic, under the latitudes where navigators had discovered the island of Gonçalo Alvarez. Fresh surveys thrust farther south these real or imaginary shores, which have now become the seaboard of the "Antarctic" Continent, and when Bouvet in 1739 discovered the island and group of islets now bearing his name, he called them "Cape Circumcision," supposing these snowy rocks to be a headland of the polar continent. But this region, lying between  $54^{\circ}$  and  $55^{\circ}$  south latitude, is already far removed from the African waters, being washed by the southern seas, which with their masses of floating ice form, so to say, a continuation of the southern glacial zone.

With the "Land of Life" have also disappeared several islands, the existence of which seemed firmly established by the circumstantial statements of navigators. Thus modern explorers have vainly sought for the island of Saint Matthew, which long figured on the old maps about the latitude of  $2^{\circ} 30'$  south of the equator. Yet the commander of a squadron of seven vessels had landed and remained fourteen days on this island in 1525. The description which he gives of it corresponds exactly with that of Annobon, which was probably the land visited by him, although he was out of his reckoning by some 600 miles, no unusual error in the history of navigation at that time. Another island, Santa-Croce, or Santa-Cruz,

also figured on the charts about ten degrees to the west of Saint Matthew, although no record existed of its discovery. This name may have possibly gone adrift on the high seas through confusion with the land of Santa-Cruz, the first Portuguese appellation of the Brazilian coast.

#### GONÇALO ALVAREZ, OR GOUGH.

In the Austral Atlantic, the remotest island that may still be regarded as belonging to the African waters, is Gonçalo Alvarez, so named from the pilot who discovered it early in the sixteenth century. This name, in its contracted form written *I de gº Alvarez*, became transformed to *Diego Alvarez*; and when Gough rediscovered it in 1713, it became also known by his name. It is a craggy mass 4,350 feet high, and about 18 miles round, on the north and east fringed by three rocky islets, one of which takes the name of Church Rock, from its resemblance to a lofty nave flanked by its tower. A few sheltered creeks afford a landing on the large island, where settlers might be attracted by some fertile valleys, slopes densely clothed with brushwood, and waters well stocked with fish. But the island has only temporarily been visited by some American seal-fishers, who have reclaimed no land, living during their sojourn on fish and on birds which they attracted at night by large fires kindled on the headlands.

#### TRISTAM DA CUNHA.

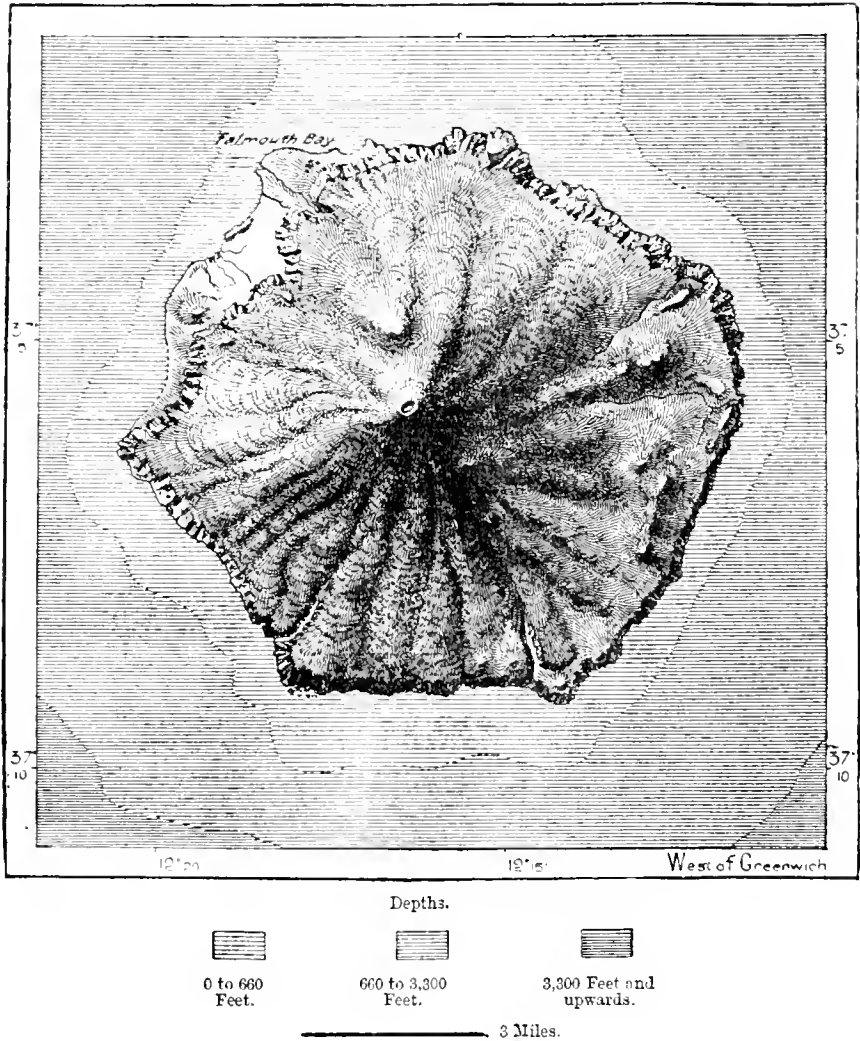
About 240 miles to the north-west of Gough lies another rocky group on the highway between the Cape and the La Plata estuary, about 1,800 miles from the former and 2,400 from the latter. This is the Tristam da Cunha archipelago, so named from a navigator, "whose name," sings Camoens, "shall never extinguished be in the Austral isles washed by the Austral sea." Since its discovery in 1506 the group has been frequently visited by navigators, for it lies south of the zone of regular south-east winds, where vessels fall in with the strong western breezes, which enable them more easily to double the Cape of Good Hope. The large island is dominated by a regular snow-clad cone, rising to a height of from 8,000 to 8,500 feet, and visible at a distance of over 90 miles. *Inaccessible*, lying about 20 miles to the south-west of Tristam, takes its name from the steep cliffs, which can be approached only through some narrow ravines, and which form the pedestal of a rugged plateau often veiled by the clouds. *Nightingale*, 12 miles south-east of *Inaccessible*, is little more than a twin-peaked rock encircled by islets and reefs. These volcanic islands have altogether an area of over 20,000 acres, the principal island comprising over three-quarters of the whole extent. They are composed entirely of lavas, either compact or broken into innumerable fragments, or else reduced to a rich blackish mould. The highest peak in Tristam, which has been several times ascended, terminates, like the volcanic cones in the other islands, in a crater now flooded by a blue lake. Towards the north-west the lava-streams have acquired the appearance of a vast moraine descending down to

the sea, and fringed by a sort of natural wall of blocks for a distance of some miles. These may possibly be traces of an old glacial epoch.

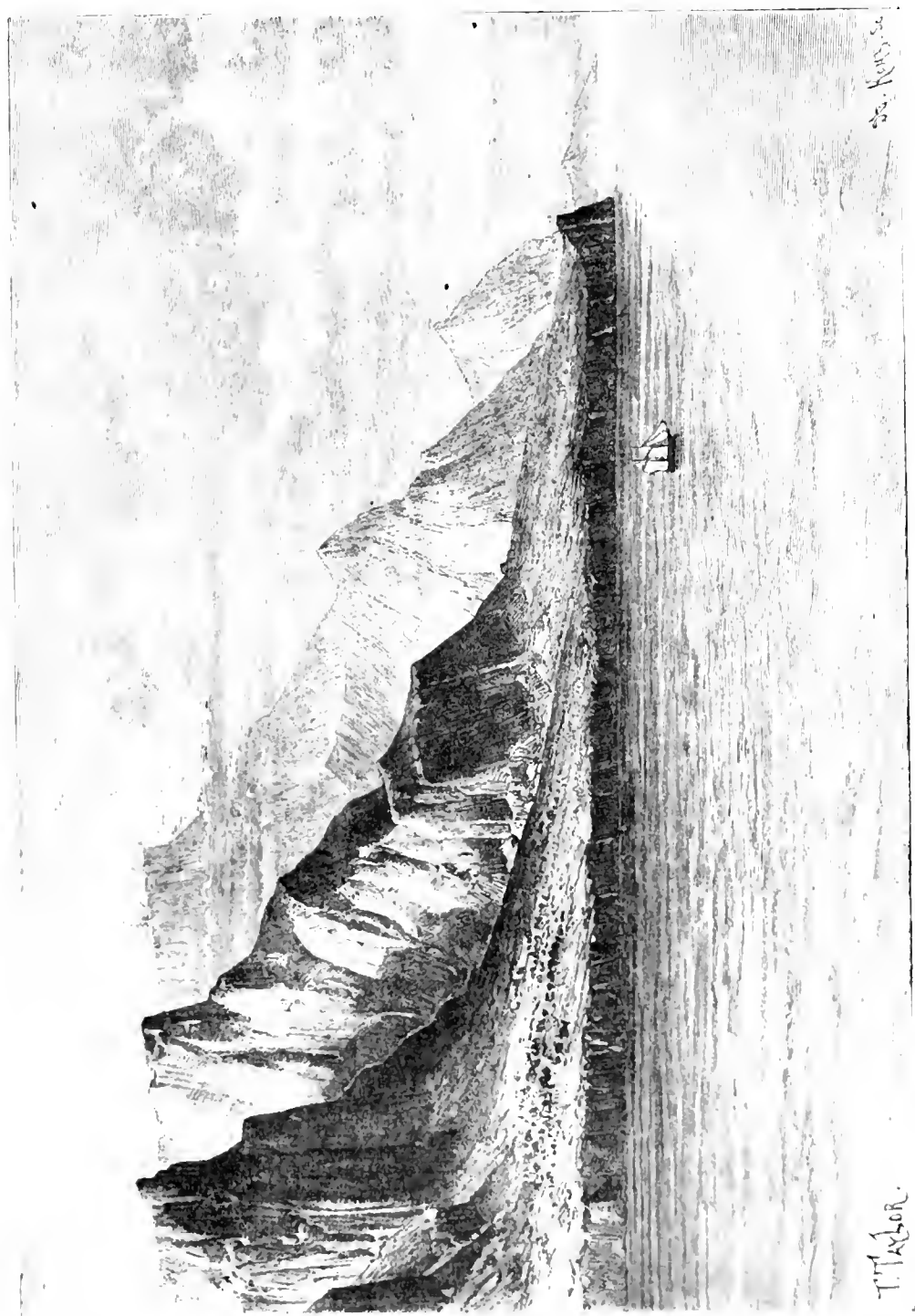
At present snow remains only on the higher grounds, very little ever falling as low as sea-level. The climate is very mild, but also very damp, the narrow upland valleys being traversed by torrents, which in many places develop copious

Fig. 39.—TRISTAM DA CUNHA.

Scale 1 : 200,000.



cascades. According to the Rev. Mr. Taylor the thermometer varies from about 68° F. in summer to 58° or 60° F. in winter, and even at night it rarely falls to more than eight degrees below freezing point. The prevailing winds blow from the west and north-west; but during the antarctic winter, and especially in August and September, they are often replaced by fierce southern gales, lashing



TRISTAO DA CUNHA—VIEW TAKEN ON THE NORTH COAST.





the sea into huge billows. Heavy rollers also break on the rocky shores even in calm weather.

#### FLORA AND FAUNA.

The large island is encircled by a broad belt of gigantic seaweed (*Macrocystis pyrifera*), forming a veritable forest of algæ over a third of a mile wide, in which plants from 180 to 200 feet long are very common. These fucus, which take root at an average depth of 90 feet, facilitate landing on the island by deadening the fury of the waves.

Tristam da Cunha constitutes an independent oceanic group, which probably at no time formed part of the mainland. Hence it possesses a special flora, with forms which are again found in the islets of Saint Paul and Amsterdam in the Indian Ocean, nearly 100 degrees of longitude farther east. These curious plants, thus covering such a vast range and developed under the influence of an analogous climate, comprise some heaths and a prickly grass (*Spartina arundinacea*) growing in large tufts on all the lower slopes, in many places so interlaced as to be quite impenetrable. The only tree in this insular flora is the *Phylica arborea*, which in some places attains a height of 20 feet and upwards, but which usually bends its distorted stem down to the ground. It forms, with the drift-wood on the east coast, the only available fuel of the inhabitants. The plants of the European and American temperate zones thrive well in the sheltered dells—cabbage, beet-root, turnips, onions, yielding rich crops sufficient for the local wants and for the supply of passing vessels. The pears, peaches, and grapes are also excellent; but the cultivation of maize and wheat has had to be abandoned owing to the ravages of the mice.

No reptiles have been discovered on the islands, nor apparently any insects, the only indigenous animals being mews, penguins, the stormy petrel, albatros, and some other aquatic birds. The pigs now running wild are certainly of European origin, although introduced at an unknown date. The goats, however, which were also at one time numerous, have disappeared for some unexplained reason. The domestic cat has given rise to a wild breed, which at times contends successfully with the dog, and which commits great havoc in the poultry-yard. The chief resources of the people are their cattle, sheep, hogs, rabbits, and game. Some of the cattle are exported to Saint Helena, and some domestic animals let loose in inaccessible have also greatly multiplied.

#### INHABITANTS.

Tristam da Cunha has been inhabited since 1811, when the American sailor Jonathan Lambert settled here with two companions, and began to clear the ground. In 1816, the British Government fearing a secret expedition might here be organised to deliver the prisoner of Saint Helena, placed a small garrison in the island. In 1821 the men, being no longer needed, were withdrawn; but a few

soldiers obtained leave to remain, and since then the colony has been maintained, at times increased by a few shipwrecked sailors, at times diminished by emigration of young men, or of whole families, eager to escape from their narrow ocean home. In 1865, during the war of Secession, an American corsair landed forty prisoners on the island without providing for their support. On other occasions the crews of passing ships have forcibly obtained supplies from the little colony of settlers, who have nobly avenged themselves by hastening to the succour of vessels often stranded on their rocky shores.

If left to itself, this little insular community might perhaps be able to subsist and develop, thanks to the uniform excellence of the climate. The families are said never to lose their children young, so that the natural increase by the excess of births over deaths is considerable. The natives, issue of Europeans, Americans, and Hollanders from the Cape, married to half-caste women from Saint Helena and South Africa, are a fine race, remarkable for the grace and harmony of their proportions. In 1886 they numbered a hundred and twelve souls; but fifteen adults, or one-fourth of all the able-bodied members of the community, were soon after swept away by a terrible storm, and in 1898 the population was about a hundred.

English is the language of these islanders, who constitute a small republic, whose "president" is the patriarch encircled by the largest family group. They recognise the sovereignty of Great Britain, which occasionally affords some help to the vassal colony.

#### SAINT HELENA.

Although situated fully within the tropics, between  $15^{\circ}$  and  $16^{\circ}$  south latitude, and 1,400 miles nearer to the equator than Tristam da Cunha, St. Helena was discovered only four years earlier, that is, in 1502, by the Galician Juan de Nova, who here lost one of his vessels. The island may, however, have been sighted by some previous navigators, for some lands are figured in these waters on Juan de la Cosa's map, which was completed in 1500.

Lying within the zone of the regular south-east trade winds, St. Helena occupies a very favourable position on the highway of ships homeward bound from the Indian Ocean. But the nearest continental land is the Portuguese province of Mossamedes, South-West Africa, distant 1,140 miles due west.

Although still nearly double the size of Tristam da Cunha, with a total area of about 30,000 acres, St. Helena is little more than the nucleus of what it must once have been. The present cliffs, in many places rising 2,000 feet sheer above the water, are encircled by a sort of bank or terrace with a mean breadth of two or three miles and flooded to a depth of from 300 to 600 feet and upwards. This submerged land, which rises abruptly from the marine abysses, forms the pedestal of the old volcanic mass, of which a mere fragment now survives. And when it covered a wider extent, the island also rose vertically to a greater height. But while the waves were incessantly attacking its foundations, its uplands were exposed to the ravages of rains and running waters. This twofold work of erosion,

continued for unnumbered ages, must nevertheless have been an extremely slow process, owing to the intense hardness of these lava formations. After a many years' careful study of the work of disintegration on the rock-bound coast, M. Melliss estimated at over 44,000 years the time occupied in the destruction of certain headlands, of which nothing is now visible except a few reefs.

All the St. Helena rocks—basalts, pozzolanas, pumice, vitrified or other materials—are of igneous origin. No other formations, sedimentary or crystalline, have been discovered, which might justify the theory sometimes put forward that the island was formerly connected with a continental mass. In some places, notably in Gregory's Valley, the basalt rocks are traversed by other and much harder basalts, ejected from below during some local underground disturbance. While the rest of the rock is eaten away to a great depth, these dykes, which intersect each other in various directions, stand out like the walls of a vast edifice now in ruins. The delusion is heightened by the interstices of the columns, resembling those of masonry.

The study of the relief of the land has shown that the centre of eruption lay on the south coast at the point now known as Sandy Bay. Here is still visible the crater, forming a regular semicircle washed by the surf from the high seas. But around this central nucleus is developed another semicircular crater, a magnificent amphitheatre, whose main axis is indicated by the culminating peaks of the island. Some of the prominences on this outer circuit resemble gigantic pillars. Such are "Lot and his wife," which rise to the respective heights of 300 and 260 feet on the southern part of the volcanic enclosure. A huge detached boulder of clink-stone rests on end, like those "Stonehenges" which have become famous in the mythology of the European peoples. The higher crater has a diameter of no less than four miles, presenting in many places the aspect of chaos and gloom, as attested by such names as "Hell-Gate," and "Devil's Garden." Nevertheless, the finest cultivated tracts and most luxuriant orchards are found on the inner slopes of this crater. A winding carriage-road leads from the higher crests down to the bottom of the chasm.

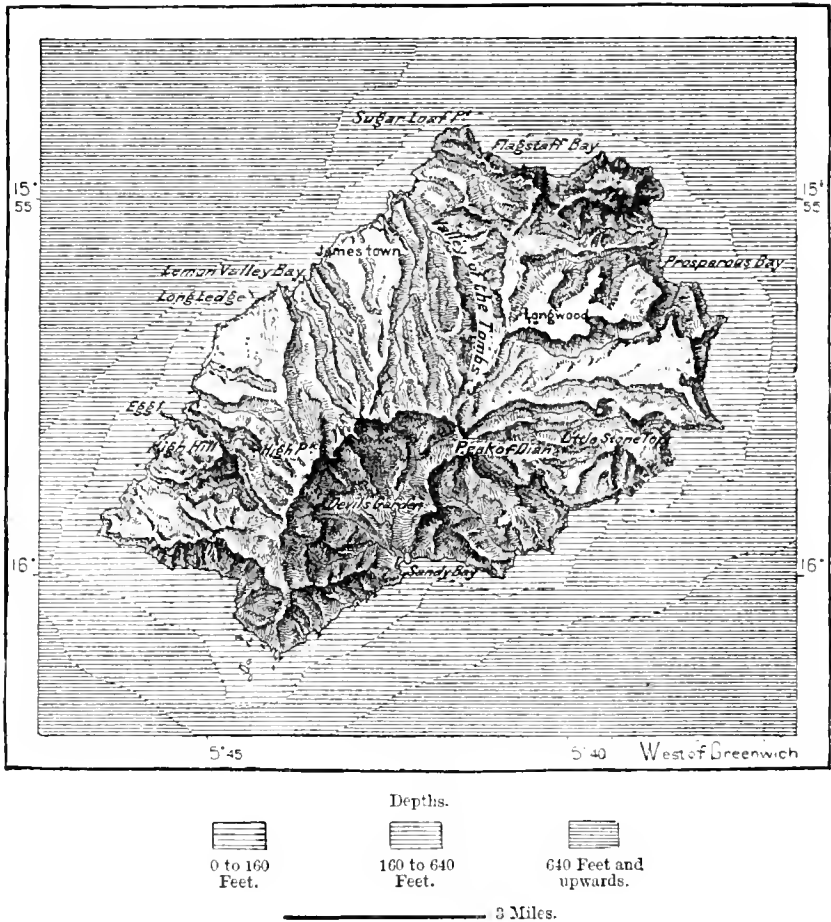
Weathered by time and deprived of its eruptive cones, the north side of St. Helena no longer presents the majestic appearance of other volcanic islands. Its aspect is rather that of a confused mass of black and reddish rocks encircled by jagged cliffs and escarpments, but offering a somewhat monotonous profile above the gorges on the coast. Toward the east, however, a terminal headland stands out boldly, detached by a deep fissure from the main insular mass. Several eminences exceed 2,000 feet, the highest being the Peak of Diana (2,700 feet), which commands a panoramic view of the whole island, with its crests and valleys, its sharp peaks and deep ravines. At the time of its discovery, St. Helena was clad with dense forests down to the water's edge. But most of these have since disappeared, and five-sixths of the surface have been deprived of all vegetation. Hence nearly all the plants now occurring are exotics, introduced from Europe, Africa, America, and even Australia.

## CLIMATE.

The growth of the foreign vegetation has been promoted by the mildness of the climate. Although lying in the torrid zone, St. Helena has no summer heats greater than those of England, the normal temperature being constantly lowered by the south-east breezes and cool waters of the Antarctic current, while the lower valleys are sheltered from the solar rays by the clouds settling on the encircling

Fig. 40.—ST. HELENA.

Scale 1 : 155,000.



hills. Throughout the year the days when the sky is overcast are twice as numerous as the cloudless days, and the mean difference between the winter colds and summer heats scarcely exceeds 30° F., the glass generally ranging from 53° F. to 83° F. For a hundred and forty days the annual rainfall reaches 27 inches in Jamestown, where the atmosphere is relatively dry ; but at Longwood, in the hills, it exceeds 48 inches. Heavy downpours occur chiefly in March and April, that is, at the beginning of the Austral winter ; but thunderstorms are

extremely rare, so that lightning-conductors are not even placed over powder-magazines. The heavy ground-swells break upon the north-west coast chiefly during the fine and calm months of January and February, as if nature were hushed to contemplate this tremendous crash of the ocean billows.

#### FLORA.

Thanks to its remoteness from all continental land, St. Helena had formerly a perfectly distinct flora. But several indigenous species, including the ebony, have disappeared, either uprooted by man, or destroyed by the goats and swine, or else choked by the intruding exotics. During the present century many have perished in this way, while others are found only in the gardens, from which they also threaten to disappear. Of seven hundred and forty-six flowering plants, now increased by three hundred fresh arrivals, Darwin reckoned only fifty-two native species, including a fine tree-fern and some heaths. But Melliss raised the number to seventy-seven, "representatives of an old world," which have now nearly all taken refuge on Diana Peak and the surrounding crests.

The European oak, fir, and cypress succeed well, and amongst the industrial and alimentary plants are seen immigrants both from the torrid and temperate zones. The cultivation of cinchona has been abandoned, but the coffee and tea plants, sugar-cane, cotton, indigo, guava, banana, flourish in the same garden with the apple, pear, and vine, while the potato grows by the side of the yam and batata. Unfortunately the weeds of various countries have also invaded the island, and would have soon overrun the cultivated tracts but for the precautionary measures that had to be taken in the interest of the general good.

#### FAUNA.

The indigenous fauna also differed from those of the two nearest continents, even comprising a land-bird (*Charadrius pecuarius*) unknown in all the other Atlantic islands. St. Helena is also one of the resting stations for the great sea-birds, such as the sea-eagle and the frigate, "which is all wing and which sleeps on the storm." The wild goats, very numerous during the early days of the colonisation, have nearly been exterminated, so that the wild fauna is now reduced to the rat and rabbit, both very troublesome to the husbandman. The only reptiles are the centipede and scorpion, introduced probably through carelessness. Of ninety-six species of butterflies one half are indigenous, the others being common also to Africa and the Atlantic islands as far as the Azores. Eleven species of indigenous land molluscs still survive, all resembling without being identical with corresponding species in the Seychelles and Oceania. Many others occur on the uplands in a semi-fossil state, having perished only since the destruction of the forests.

The horse, ox, sheep, goat, pheasant, guinea-fowl, poultry, and other birds were introduced by the first Portuguese and Dutch settlers, and to these the English have added numerous other varieties, including the sparrows so destructive to cereals. Another pest is the termite, which was accidentally imported from Brazil

about 1840, and which, five years afterwards, had half ruined Jamestown. It cost £60,000 to repair the damage done by these destructive insects. The surrounding waters abound in tunny and other fishes.

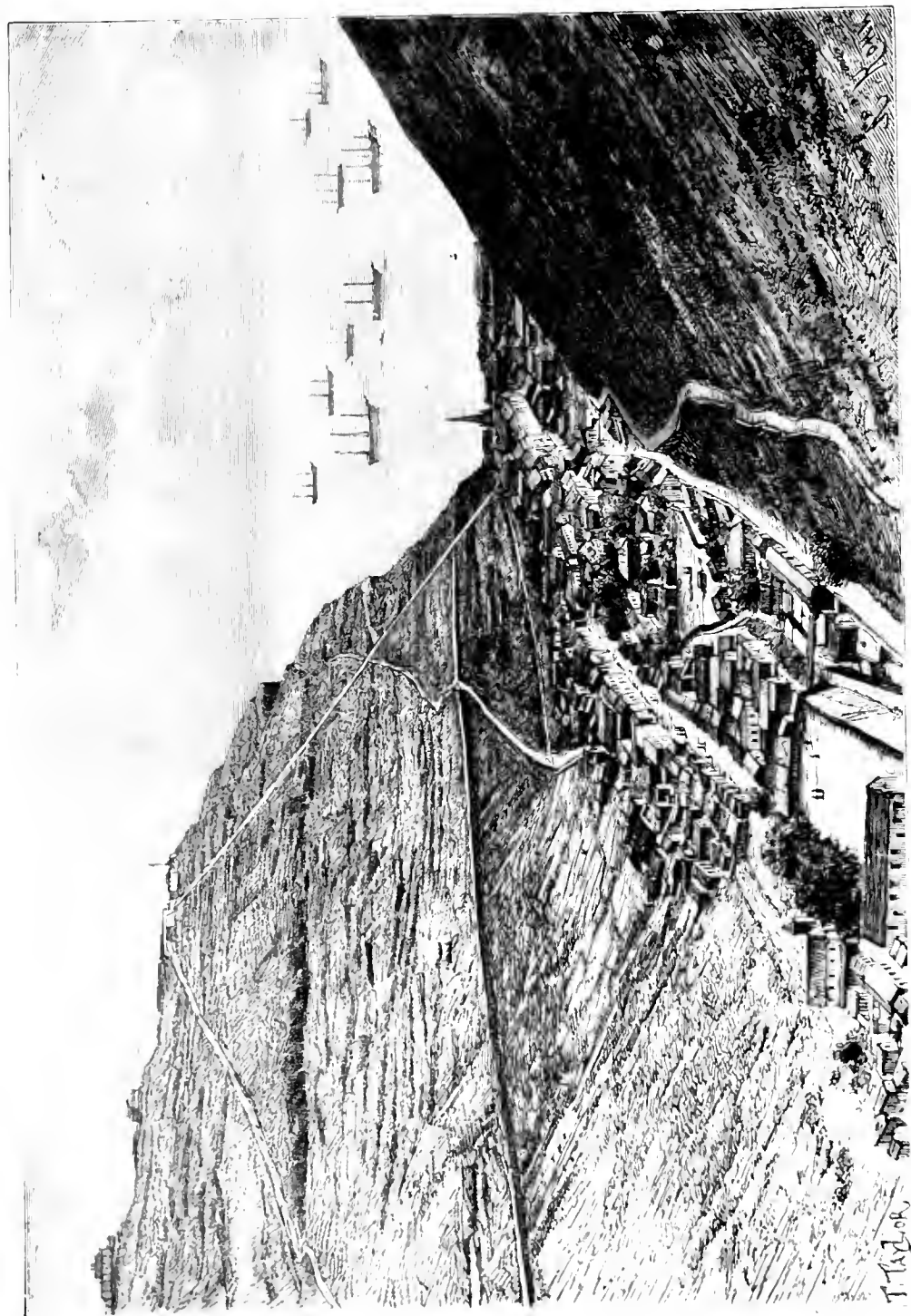
#### INHABITANTS.

St. Helena was occupied soon after its discovery, and in 1513 some Portuguese soldiers, mutilated by Albuquerque for the crime of desertion, were left here with a few slaves, domestic animals, and supplies. After this the island was again completely abandoned till 1651, when the Portuguese were succeeded by the Dutch, and these again by the English, amongst whom were several families ruined by the great fire of London in 1666. Some Negroes and other African slaves were also introduced, and Chinese and Malay coolies for the first time in 1810. Formed of so many different elements, the race is far from possessing the florid English complexion, but is nevertheless distinguished by a general grace and beauty of features. On Christmas Day, 1818, fifteen years before the abolition of slavery in the other British colonies, the future offspring of slaves were declared free, and in 1822 the six hundred and fourteen still remaining slaves were emancipated.

The name of this little Atlantic rock has become famous in the history of France and the world. Here Napoleon, prisoner of England, passed in exile the last six years of his life, and during this period of calm, after so many wars and political convulsions, all eyes were steadily fixed "on this reef beaten by the melancholy ocean," this hitherto unknown block of lava, where the great captain was dying a lingering death. In the history of science St. Helena also recalls great memories. Mount Halley, which rises towards the centre of the island to a height of 2,410 feet, is the peak on which in 1676 the famous English astronomer of this name set up his observatory to prepare a catalogue of the southern constellations and observe the transit of Mercury across the sun. Another summit was chosen by Sabine in 1840 for a magnetic observatory. Lastly, Darwin and some other naturalists have made studies of supreme importance in St. Helena on physical geography and the distribution of vegetable species.

#### TRADE, RESOURCES, DECADENCE.

But this famous island no longer possesses much economic value in the markets of the world. Formerly, when voyages round the globe or the continents were rare events, St. Helena was an important station, where vessels called for supplies, and for a long time it served as an international post-office for seafarers in the Atlantic. The block of lava is still preserved under which were placed the letters and packages of passing vessels. But the substitution of steamers for sailing vessels has brought about great changes, while the opening of the Suez Canal has diverted most of the traffic from the Austral seas. St. Helena has thus lost nearly all its importance as a port of call for orders or supplies. It no longer exports anything except the produce of the American whalers, and the inhabitants, accustomed largely to depend on the visits of strangers and the bounty of the



JAMESTOWN, ST. HELENA.





British Government, have not had the energy to recover by tillage what they had lost by the stoppage of trade. Most of the farmers, ruined by mortgages, were also compelled to surrender their holdings to the capitalists of the chief town. Monopoly was thus followed by its usual consequence, misery.

#### JAMESTOWN.—LONGWOOD.

It has been proposed to develop the cultivation of *Phormium tenax*, tobacco, and other industrial plants; but these projects have had no result, and the population has considerably diminished by emigration, especially to the Cape. It thus fell from 6,800 in 1861 to 4,116 in 1891, notwithstanding the perfectly healthy climate and the great excess of births over deaths. The revenue, public service, education, everything, is in a state of decadence, and the island is now visited by few strangers.

*Jamestown*, the only town in St. Helena, lies on the west or leeward side, where it could alone have been founded. The opposite coast is rendered almost inaccessible by the fury of the breakers, caused by the influence of the trade winds. The town with its surrounding gardens occupies the entrance of a narrow mountain gorge, which after heavy rains sends down an impetuous stream, at times sweeping seawards cattle, trees, and débris of all sorts. West of Jamestown the escarpments rise at a sharp angle, forming the so-called Ladder Hill (600 feet), which is crowned by military structures. This eminence takes its name from a flight of nearly seven hundred steps cut in a straight line up the face of the rock. Rupert's Hill, lying farther east, is surmounted by a steep road, which penetrates into the interior, leading to the little house at Longwood where Napoleon lived and died. Near it is the "Valley of the Tomb;" but the body, which had been here placed under a clump of willows, reposes since 1840 under the dome of the Invalides in Paris.

The inhabitants of St. Helena have no representative institutions. The island, which till the year 1834 belonged to the East India Company, is now a Crown colony, all officials being nominated by the central government in London.

#### ASCENSION.

This island, also an English Crown colony, was discovered in the same year as St. Helena and by the same navigator, Juan de Nova. It lies nearly on the median line of the Atlantic basin, resting on the submerged "Challenger" ridge, by which the deep African waters are separated from the still deeper abysses of the western seas bathing the New World. Ascension is distant about 1,320 miles from Pernambuco on the Brazilian coast, and a little farther from Angola under the same latitude on the west coast of Africa, but not more than 930 miles from Cape Palmas, the nearest point on that continent. Like St. Helena, it falls within the zone of the south-east trade winds, and consequently presents the same phenomenon of surf-beaten shores, rendering the south side almost inaccessible, and obliging

vessels to seek shelter on the north or leeward coast. The rollers, which break on the beach even in calm weather, and especially from December to April, are perhaps even more formidable than at St. Helena. This magnificent spectacle lasts at times for days and weeks together. But mighty billows 30 feet and upwards in height are sometimes raised within a few minutes and as suddenly stilled. By Evans they are attributed to the fall of enormous icebergs, which break away incessantly from the rocky Antarctic lands, and plunge bodily into the deep.

Ascension is of smaller size (30,000 acres) but more regular form than St. Helena, presenting the outlines of a spherical triangle, with its most precipitous side facing towards the trade winds. It culminates in the centre with a lofty cone 2,800 feet high, whence is afforded a comprehensive view of nearly all the now extinct craters, of which geologists have reckoned as many as forty-one. From the central cone Darwin noticed that the mounds of scoriæ presented their more sloping side towards the south-east trade winds, while the largest quantities of igneous matter were ejected on the opposite side, where it falls in abrupt escarpments. Most of the craters are cut obliquely by the effect of the aerial current, although nearly all the inner cirques are of extremely regular form. One of them has even received the name of the Riding School.

Volcanic boulders are scattered round the craters, and in the mass of scoriæ are embedded some blocks of different formation, such as syenite and granite. But apart from these isolated specimens, the red and calcined mass of Ascension presents nothing but igneous rocks, such as basalts, pumice, pozzolana, or argillaceous clays. Round about the shore-line, however, the masses of broken shells, of corals, and volcanic sands are consolidated into a sort of limestone conglomerate, which may be used as a building material. Certain varieties of this rock acquire the consistency and appearance of white marble, while others are disposed in transparent and almost crystalline layers, covering as with enamel the reefs washed by the tides. This natural cement becomes fixed so rapidly that young turtles hatched in the sands get overtaken and embedded in the concrete mass.

#### CLIMATE.—FLORA.

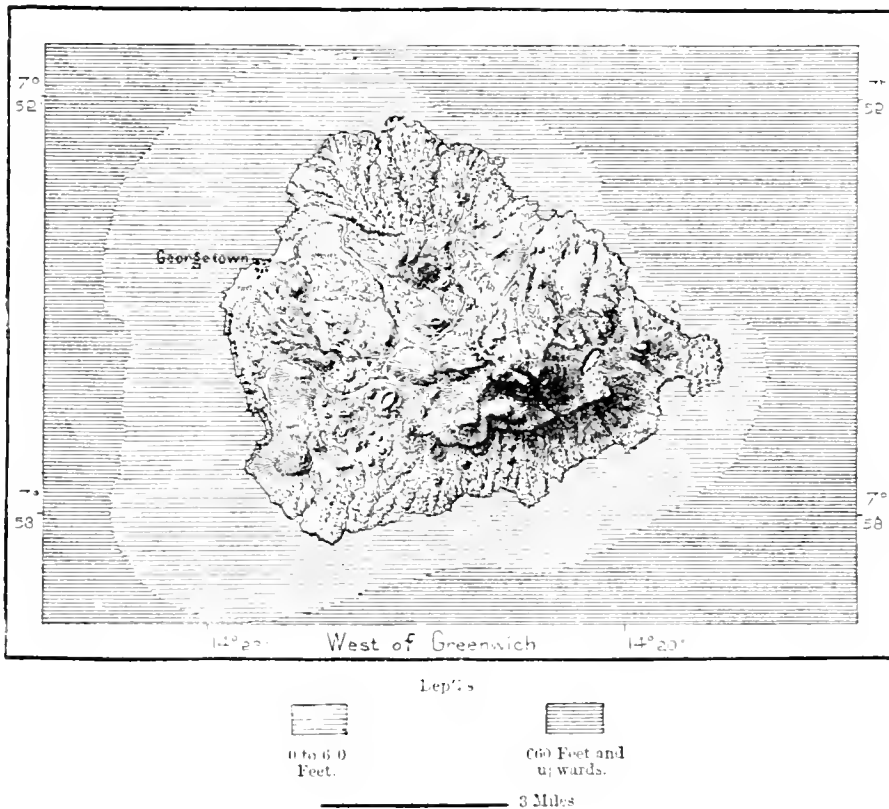
When the air remains unrefreshed by the sea-breezes, the temperature becomes very oppressive, for Ascension lies under  $7^{\circ} 57'$  S. latitude, within 550 miles of the equator. In the roadstead the mean annual temperature is  $84^{\circ}$  F., which on the breezy uplands falls to  $68^{\circ}$  or even  $60^{\circ}$  F. Although an epidemic of yellow fever carried off a third of the garrison in 1823, the climate is considered exceptionally salubrious, despite the high temperature; the island has even become a health-resort for Europeans residing on the African coast. The rainfall, much less copious than in St. Helena, is insufficient for the local requirements; hence the smallest springs, including one discovered by Dampier when shipwrecked here in 1701, are husbanded with the greatest care. The few heavy showers almost entirely disappear in the scoriæ covering most of the surface.

Since 1860 successful attempts have been made to replant the uplands. The

original vegetation comprised only sixteen species of flowering plants, amongst which was one shrub, the *Hedyotis Ascensionis*; but the introduced species are now reckoned by the hundred. Mr. Bell, the botanist, has transformed the higher grounds to a vast garden of acclimatisation, and a space of about 400 acres is now covered with rising forests of acacias, araucarias, gum-trees, junipers, and eucalyptuses. These plantations have had a salutary effect on the climate, by intercepting the moisture, which even trickles from the foliage to the ground, where it is collected to water the animals, and even to supply the wants of man.

Fig. 41.—ASCENSION.

Scale 1 : 200,000.



Direct experiment has thus shown that, at least in these torrid climates, plantations do really to some slight extent increase the moisture by distilling the water of the clouds.

#### FAUNA.—INHABITANTS.

Like the flora, the fauna, with the exception of the large sea-birds and marine animals, is of exotic origin. From Europe have been introduced the goats and cats, both now running wild, the rats, dogs, pheasants, poultry, and, from Africa,

the guinea-fowl. Snakes are unknown; but turtles of gigantic size abound from December to May, when they leave the water to lay their eggs in the sand. Most of them weigh from four hundred and fifty to six hundred pounds, but have been found weighing as much as nine hundred pounds, but their flesh is less esteemed by epicures than that of the smaller West Indian variety. The fisheries were formerly very productive, yielding as many as two thousand five hundred in exceptional years, but the average take does not now exceed three hundred. During the spawning season no guns are fired nor lights kindled on the beach, to avoid scaring these timid chelonians. Large numbers of young turtles, as soon as hatched, are devoured by the sea-birds wheeling incessantly overhead.

The only inhabitants of Ascension are the soldiers, sailors, officials, and a few provision-dealers attached to the garrison. Politically the island is regarded as a man-of-war whose inhabitants are the crew. The governor is, like a naval captain, "master on board," allowing no person to land without the special permission of the Lords of the Admiralty. This military station was first established in 1815, in order to keep watch over Napoleon; but even after his death in 1821 the station was maintained, thanks to its position as a sentinel in the centre of the Atlantic highroad, and midway between the two continents. At *Georgetown*, the only group of habitations, passing steamers renew their supplies of coal and provisions, but can obtain water only in case of extreme urgency.

#### ISLANDS IN THE GULF OF GUINEA.

These four islands, although equally of volcanic origin, differ from the other South Atlantic groups, at least by their position in relatively shallow water near the African coast. In the Gulf of Guinea the depths are everywhere under 1,000 fathoms, falling on one side of Fernando-Po to less than 340 feet. Through the inclined plain on which they rest these islands form a natural dependence of Africa; their craters are also disposed in a straight line which is continued on the mainland by the Kamerouns volcano, so that the insular and continental masses obviously form a single system lying on the line of the same volcanic fault. Possibly St. Helena may belong to the same system, but it is so remote and separated by such deep waters from the continent, that it must be regarded as a world apart.

The four islands running due south-west and north-east form also a distinct geographical group, whose members are disposed at regular intervals of about 120 miles one from the other. Politically they are divided amongst two European powers, the two inner islands, San-Thomé and Principe, belonging to Portugal, the two outer, Annobon and Fernando-Po, forming Spanish possessions since 1778.

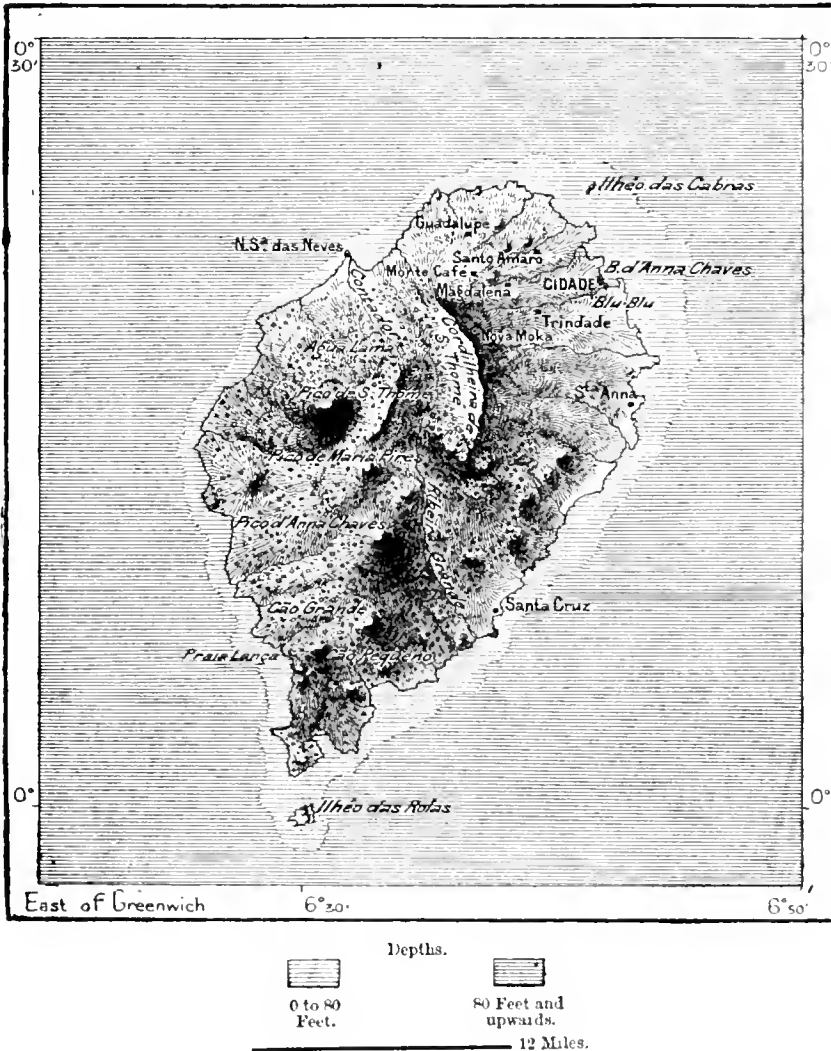
#### ANNOBON.

Annobon, properly Anno Bom, that is, "Good Year," was so named in 1471 by its Portuguese discoverers, Escobar and Santarem, because they sighted it on

January 1st of that year. It is the smallest of the group, with a superficial area of scarcely 7 square miles. This mass of fissured lavas rises in the central cone of Pico do Fogo to a height of 3,250 feet. Encircling the peak are some forest-clad lateral cones, and a small crater near the summit is flooded by a lake in whose

Fig. 42.—SAM-THOMÉ.

Scale 1 : 550,000.



blue waters is mirrored the foliage of the surrounding orange-groves. The dense and sombre woods of the interior are contrasted lower down by a girdle of more delicate verdure, consisting of palms and bananas.

The verdant aspect of the island gives proof of a much more copious rainfall than in St. Helena, and if Annobon is drier than the more northern members of

FIG. 43.—CASCADE OF BLU-BLU, ON THE AGOA GRANDE, NEAR THE CAPITAL OF SAM-THOMÉ.



the group, it is also far more salubrious. Yet it has never become a European

colony, and all its three thousand inhabitants are Negroes or people of colour, descended from shipwrecked sailors or slaves introduced by the first Portuguese occupiers. They are devout Catholics, or, at least, observers of the outward forms of the Church. *Sam-Antonio da Praia*, the chief village of this little black republic, lies on the north side, where it supplies passing vessels with water, wood and fruit, especially exquisite oranges.

#### SAM-THOMÉ.

Sam-Thomé (Saint Thomas), like all the others, is of oval form, but much larger than Annobon, covering an area of 370 square miles. There appear to have been several centres of eruption, the profile showing not one dominating cone, but several lofty peaks, such as the central, Santa-Anna de Chaves, and Sam-Thomé on the west side, which rises to a height of 7,000 feet, or a little more than its rival. The peak, whose wooded slopes have been scaled by several travellers, is flanked on the north and east by a semicircular ridge known as the Cordilheira de Sam-Thomé, which is supposed to be the fragment of an old crater. Several islets rise above the neighbouring waters, of which the largest are Cabras ("Goat") and Rolas ("Doves"), separated by the equator from the larger island.

The temperature is somewhat moderated by the relatively cooler southern current, which, at times, encircles the whole island. To this cause is due the greater salubrity enjoyed by Sam-Thomé compared with the other lands lying nearer the marshy regions of the continent. The months of June, July, and August, which are the most unhealthy on the mainland and in Fernando-Po, are the least trying for Europeans in Sam-Thomé, although still dangerous for the Negroes, who then suffer from chills and rheumatism. Europeans readily become acclimatised on the uplands, where the heats are less intense, and every plantation is a sanatorium. This is an important consideration in the neighbourhood of such unhealthy coastlands as those of Calabar, the Kameroons, and Gaboon, where the attempts of the whites to acclimatise themselves have hitherto had but partial success. At the same time the coast of Sam-Thomé is also generally regarded as very dangerous to strangers. The island is situated in the intermediate zone between the oceanic and tropical African climates; its rainfall is abundant, and every valley has consequently its *ribeirã*, or mountain torrent, rushing in successive falls from rock to rock. The best known of these streams is the Agoa Grande, on the north-east slope, at the mouth of which stands the capital. At the Blu-Blu cascade its limpid waters descend in a body down to the gardens, refreshing with their spray the overhanging foliage of the bananas.

#### FLORA AND FAUNA.

Sam-Thomé lies not more than 150 miles from Cape Lopez, the nearest continental headland. Hence the local vegetation, represented by about four hundred and thirty species, greatly resembles that of the mainland. Nevertheless, certain

features in its natural history would seem to imply that the island was never at any time connected with Africa. Of its eighteen species of land molluscs one only occurs on the neighbouring coast; a bat also (*Cynonycteris stramineus*) is peculiar to the island, as well as a monkey (*Cercopithecus albicularis*), the only member of the family found in its forests. Of noxious animals the most troublesome are the cobra negra, a poisonous snake, dangerous to those engaged in clearing the woods, and the rat, very often destructive to the crops.

#### INHABITANTS.

Since the end of the fifteenth century Sam-Thomé was occupied by European colonists, who worked their plantations by means of slave labour. But in 1567 the French corsairs drove the Portuguese settlers to take refuge in the inland forests, while those in the north were harassed by some Angolan Negroes, who had been shipwrecked and obtained a footing on the south-west side. For over a century this guerilla warfare was continued, but the runaways were at last reduced in 1693. They, however, still occupy the west coast to the number of about thirteen hundred, faithfully preserving their national usages, keeping entirely aloof from the other islanders, and still speaking the Bunda language of their ancestors.

During the first half of the present century Sam-Thomé lost much of its economic importance through the emigration of large numbers to Brazil; but since 1876, when the slaves were emancipated, the island has become one of the most flourishing colonial possessions of Portugal. During the first period of the colonisation attention was chiefly paid to the sugar-cane, which was introduced from Madeira, and which in some years yielded 2,000 tons. Numerous other tropical plants also thrive in the gardens, and the heights between 2,000 and 4,600 feet are now covered with cinchona plantations containing as many as a million trees. But the chief sources of wealth are coffee and cacao exported almost exclusively to Lisbon, where they are much more highly esteemed than those of the Antilles. Nearly all the north side of the island is under cultivation, while the southern half is still mainly overgrown with primeval forest.

The population is increasing rapidly, having risen from 8,000 in 1855 to 23,000 in 1897, of whom 1,300 are either whites or mestizos. But education is still in a very backward state, scarcely more than two hundred and sixty being able to read and write.

*Cidade*, or the "city," capital of the island, is pleasantly situated on the semi-circular Anna de Chaves bay on the north-east coast, and at the mouth of the Agoa Grande. Here resides the governor and commander of the Portuguese garrison. In the neighbourhood are some salt-pans.

#### PRINCIPE.

The Ilha do Principe (Prince's Island), so named because thirty years after its discovery in 1471 it was assigned as an appanage to a royal prince, is six times



smaller than Sam-Thomé, having an area of only 60 square miles. The surface, somewhat uniform in the north, rises rapidly southwards, attaining in the chief peak a height of 2,700 feet. The copious rains falling on this "garden of Africa" have clothed the slopes with dense forests, and furrowed them with "as many streamlets as there are days in the year" (F. Travassos Valdez). The atmosphere, however, is less healthy than in the southern islands, and especially in Annobon, Principe lying altogether beyond the influence of the relatively cool equatorial current. Cultivated by slave labour from the first period of the Portuguese occupation, it soon developed extensive sugar plantations, but derived its chief importance from its dépôt of Negroes, whence the American slavers drew their supplies. At present there is scarcely any traffic, except in the little coffee and cacao raised on the northern slope. The natives, almost exclusively blacks, who call themselves Portuguese and Catholics, have decreased from nearly five thousand in the middle of the century, to little over half that number. Nearly all reside on the north-east coast, in the little port of *Santo Antonio*, near a well-sheltered bay.

#### FERNANDO-PO.

The island, which has preserved under the Spanish form of Fernando-Po the name of its Portuguese discoverer, Fernão do Poo, is at once the largest and finest of the volcanic chain intersecting the Gulf of Guinea. The surface, about 830 square miles in extent, is mostly mountainous, rising gradually from the periphery to the cloud-capped central cone (10,000 feet), which is known to the English as Clarence Peak, and to the Spaniards as the Pico Santa Isabel. The island presents the form of an elongated parallelogram disposed in the direction from north-east to south-west, and terminating on all four sides in steep cliffs and escarpments broken here and there only by a few gently sloping circular inlets.

Seafarers navigating the strait, some 18 miles wide, flowing between Fernando-Po and the African mainland, contemplate in fine weather one of the grandest, spectacles on the surface of the globe. They pass through a superb gateway, formed on one side by the Kameroons with its wooded hills, rugged peaks, and snow-flecked cone, on the other by the island of Fernando-Po, with its lofty bluffs, its slopes clothed in verdure from base to summit, its perfectly regular volcano overtopping all. This noble approach to the inner Gulf of Guinea would be as famous as the Strait of Gibraltar or the Bosphorus, if like them it led to a busy inland sea or to a great capital, instead of to desert coastlands fringed only with wretched hamlets.

Unlike the other Austral Atlantic lands, Fernando-Po is not an oceanic island, for its northern section rests on the pedestal which forms the circuit of the continent. The intervening strait has an extreme depth of only 290 feet, and on both sides the marine bed rises rapidly towards the strand. The submerged plateau extends for some distance to the east and west of the island; then the sounding-line suddenly plunges into deep abysses, revealing depths of over 550 fathoms a little to the south of Fernando-Po. The quadrangular mass is thus

divided into two sections, one resting on the continental plateau, the other washed by deep oceanic waters. None of its cones are active, and no eruptions have hitherto been reported by the natives.

On all sides the waters descend from the hills in little cascades and rivulets, irrigating every dell and valley, and everywhere maintaining a fresh and exuberant vegetation; every tree is clothed with a forest of tiny orchids, ferns, and begonias, and every branch is draped with festoons of hanging mosses. The thickets of matted plants are a greater obstacle even than the rugged slopes to the exploration of the island, which has, nevertheless, been traversed in every direction; while the central, as well as the neighbouring cones, has been several times ascended since the feat was first performed by Beerott.

The exuberance of the arborescent vegetation is due to the abundant moisture brought by the south-west monsoons, which blow regularly during the greater part of the rainy season, and which are frequently interrupted by the tornadoes, causing a considerable precipitation on the uplands. Mention is made by M. Pellon of a waterspout which burst over the land, discharging in a single hour a liquid mass six inches thick. There can be no doubt that on the higher grounds even heavier downpours occur, as may be concluded from the dense vapours and clouds constantly enveloping the loftier summits, and often even during the dry season the lower slopes. There are altogether about a hundred and sixty-seven rainy days, with a mean annual rainfall of from 100 to 120 inches, and an average temperature of 77° F. at the capital, Santa-Isabel, varying from 90° F. in February to 66° F. in September.

#### FLORA.

Thanks to the great elevation of its mountains, rising from the torrid lowlands to the cold upper regions, Fernando-Po presents a highly diversified flora, corresponding below with that of the neighbouring mainland, higher up with that of the African highlands. The summit of the peak is clothed with a vegetation resembling that of the temperate zone, in which Mann has recognised seventeen species recurring on the lofty Abyssinian uplands 2,000 miles away. The same botanist asserts that the flora of the peak offers a certain affinity with that of the islands in the Indian Ocean, while differing altogether from that of the Cape and the Atlantic islands.

All the cultivated tropical plants flourish on the lowlands, and those of the temperate zone on the middle slopes, so that the island might become a garden of acclimatisation for all the terrestrial flora. The species most generally cultivated are the same as in Sam-Thomé—cacao, coffee, sugar-cane, cotton, tobacco. The banana, maize, rice, tapioca, yams, supply abundance of food to the black population, and on the cleared uplands grow all European vegetables. The cinchona plantations have also yielded excellent results.

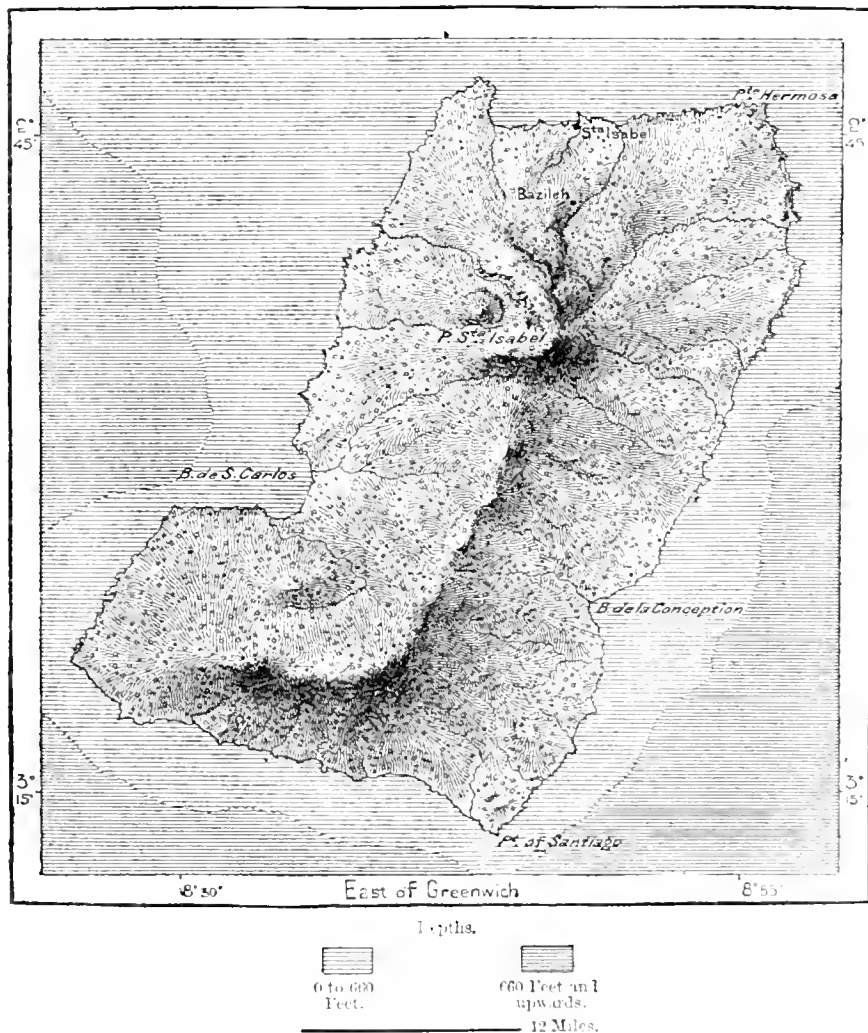
#### FAUNA.

Most European domestic animals have been introduced; cattle herd in the

glades, and to the produce of stock-breeding are added the abundant supplies yielded by the fisheries of the surrounding waters. But the primitive fauna is very poor except in birds, insects, and worms, besides several species of venomous and harmless snakes. The only wild quadruped is a species of antelope, which has taken refuge on the uplands, and is now found only in the vicinity of the higher craters. Formerly three species of monkeys inhabited the woodlands, and

Fig. 44.—FERNANDO-PO.

Scale 1 : 650,000.



most naturalists still think that these quadrumana were indigenous. But although their remains are found in the island, the animals may have been introduced from the continent.

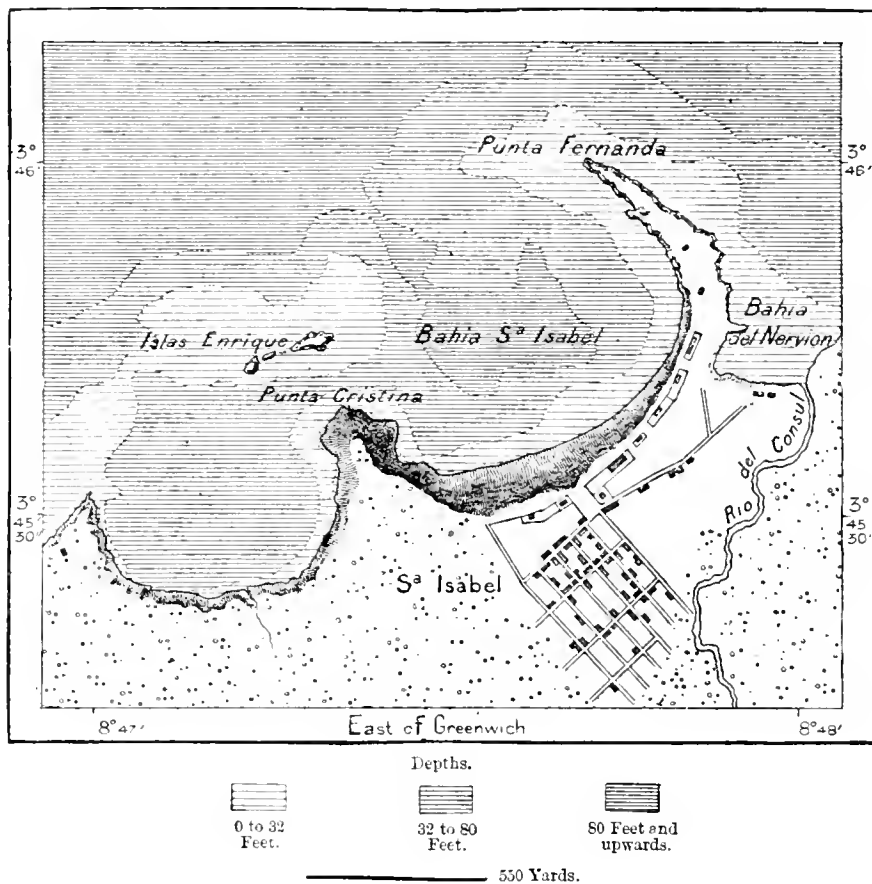
#### INHABITANTS.

According to an ancient tradition, Fernando-Po was formerly inhabited by a

different race of blacks from the present, and to them are attributed the stone axes that have been picked up in various districts. But however this be, the present population has certainly immigrated from the mainland, either at some time before the arrival of the Europeans, or soon after its discovery. It consists of scattered groups approximately estimated at nearly thirty thousand, who collectively call themselves Bubi (the "Boobies" of English writers), that is, "Men," and who give the name of Achimama ("All Lands," or "Universe"), to the island. They

Fig. 45.—BAY OF SANTA-ISABEL.

Scale 1: 20 000.



are probably descended from several tribes, for they speak at least five dialects of Bantu origin, like those of the neighbouring coastlands. They are a shy, timid race, greatly inferior in dignity and physical appearance to their continental kindred. They practise a coarse system of tattooing, cutting deep gashes on the face and body, which changes the naturally smooth skin to a rugged surface. They also smear themselves with red ochre mixed with palm-oil, with the same cosmetic converting the hair to a solid mass, on which is worn a headdress of plaited herbs. Both sexes wear a tight leather thong round the left arm, reducing

it to the compass of the wrist, and through this thong the men pass their knives. Their currency is two species of shells, which they find on the coast, and which serve also to deck their persons and protect their dwellings against the evil spirits.

All the Bubi tribes live in the interior, remote from the "citizens," whom they have good reason to mistrust. Formerly they were hunted down and carried away into slavery; hence had to take refuge in caves and dense thickets, guarded by a fierce breed of dogs, which growl and bite, but never bark. Now they live in huts, into which they reluctantly admit Europeans. On the other hand, they were themselves at times dangerous neighbours, and are said to have twice poisoned the streams and springs in order to drive away the Portuguese, who appear to have been effectually got rid of in this way. The Spaniards also were on the point of withdrawing in 1858, the natives having refused to supply them with provisions. Now, however, all are better friends; the authority of the governor is recognised, and his staff of office sent to two hostile tribes suffices to restore order.

The Bûbis worship the great spirit, Umo, an invisible being, who reveals himself in a dazzling light and in a rumbling voice coming up from the depths of the ground. When a votary wishes to implore his mercy, or obtain a knowledge of the future, he penetrates through a narrow fissure into the cave, and advancing on all-fours lays his offering at the feet of the priest representing the divinity. Suddenly a bundle of rays flashes through an opening in the vault, enveloping the priest in a divine light. He is consulted and transmits the supplications to Umo, and the cavern presently reverberates with the thunder of the god himself, who seems to rise from the abyss to answer the prayers of the suppliant.

There also resides on the east coast a "powerful king," who cannot be approached in person, but who remits the executive and judicial functions to the *bula*, a society which speaks and acts in his name. At the coronation he retires to a cave in order to hold commune with the demon through the mediation of snakes. The secondary "kings" of the neighbouring tribes are scarcely to be distinguished from ordinary subjects.

#### TRADE.—TOPOGRAPHY.—ADMINISTRATION.

The coast population, concentrated in Santa-Isabel on the north side, and in a few scattered hamlets, are mostly the descendants of black slaves set free either by the English cruisers or by their Spanish masters. The European traders have also introduced some Negroes from Lagos, Cape-Coast, Sierra-Leone, or Sam-Thomé, who represent the most civilised section of the black population, and give the English language the preponderance over Spanish. But the Cuban exiles, recently numbering two hundred, have most contributed to the industrial and commercial development of the island. To them is due the honour of having introduced the cultivation of cacao, sugar, tobacco, and begun the manufacture of the famous Santa-Isabel cigars. But after serving their term of banishment most of these

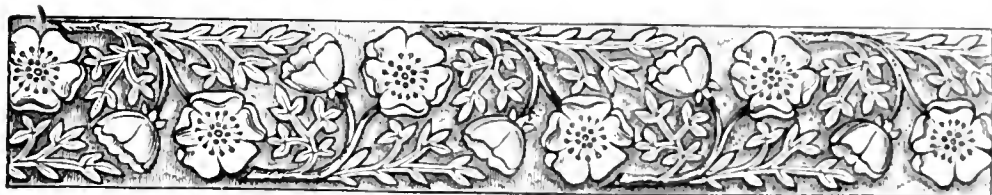
exiles have returned to Cuba, and have not been replaced by any corresponding industrial class.

Like that of Annobon, the trade of Fernando-Po is in the hands of the English and Portuguese dealers. But this trade is of slight importance, and has even recently diminished. The land is divided into large estates, and cultivated by Kroomen. But these temporary labourers, having often been maltreated, show great reluctance to return to the island, and at times the planters lack the hands required to harvest their crops.

*Santa-Isabel*, the *Clarence Town* of the English, capital and only town in the island, forms a group of little wooden houses, each surrounded by its verandah, and all embowered in verdure. The terrace on which the town is built develops a level plain at the foot of green hills and on the shore of a well-sheltered bay resembling a cirque or semicircular crater. The population numbered a little over twelve hundred in 1896, of whom only about ninety were whites. The climate is one of the most dreaded in the equatorial lands, and in 1862 a fourth of the white population, at that time two hundred and fifty souls, was carried off by yellow fever. In one of the neighbouring cemeteries lie the remains of the explorer, Richard Lander. Since 1859 Fernando-Po possesses a health resort, the first founded by the whites in the tropics. This is the village of *Basileh*, lying at an altitude of over 1,000 feet a little to the south of Santa-Isabel, and near a Bubi village. In the neighbourhood are the principal cinchona plantations of the island.

Fernando-Po, yielded to the Spaniards by Portugal in 1778, was soon after abandoned by them on account of its insalubrity. But their place was gradually taken by the English, without, however, claiming possession of the island, and in 1827 Clarence Town became one of their chief stations for the suppression of the slave trade. But fearing England might permanently annex the island, Spain resumed possession in 1845. A small garrison occupies the forts, some Spanish missionaries are engaged in evangelising the blacks, and political offenders are often interned in the island.





## CHAPTER IV.

### NORTH SENEGAMBIA: SENEGAL AND FRENCH SUDAN.

#### GENERAL SURVEY.

**S**OUTH of the Saharan region the natural frontiers of Sudan are indicated by no precise line, but rather by a narrow zone skirting the north bank of the Senegal and of the Joliba (Niger) eastwards to and beyond Timbuktu. Here takes place the transition from the dry to the rainy climate, and to these contrasts correspond others in the aspect of the land, of its flora and fauna, origin, customs, and institutions of its inhabitants. Senegambia is thus well defined northwards by the valley of the Senegal and the scarp of the plateaux which mark the geological frontier of the Sahara.

The river valley, although penetrating not more than 600 miles inland, constitutes one of the characteristic features of the continent. Here begins the real Africa, separated by the desert from that Mediterranean Africa which forms an intermediate region between the northern and southern sections of the globe. The Senegal constitutes an ethnical parting-line between the Berbers and Arabs on its right, and the Nigritian population on its left bank. In a general way the river may be said to mark the starting-point of the transverse line which runs between the domains of the brown and black races. Here two distinct worlds confront each other.

But towards the east and south Senegambia has no precise limits; in these directions the transitions take place imperceptibly, while the geographical features are marked by no striking contrasts. The water-parting between the affluents of the Senegal and Joliba is faint and uncertain, the traveller passing from one fluvial basin to the other without detecting any change in the aspect of the land. On the other hand, the ranges and groups of uplands in south Senegambia continue to develop towards the south-east as far as Liberia and the Ivory Coast, parallel with the continental seaboard. Nevertheless a certain geographical unity is presented by the oval space comprised between the Atlantic, the Senegal, the Upper Joliba, the Rokelle, and the plateau separating the sources of the two last-mentioned streams. The whole land may here be said to be grouped round the central mass of the

Futa-Jallon highlands, whence the running waters flow in divergent beds towards the encircling main streams. The whole region, to which in its widest sense may be given the name of Senegambia, including the Saharan slope of the Senegal, and even some dried-up basins sloping southward, has a total area approximately estimated at 280,000 square miles. Sufficient data are still lacking to give any trustworthy estimate of the population, so that the current calculations naturally present the greatest discrepancies. If any dependence could be placed on the missionary De Barros' computation of fourteen millions, we should have a proportion of fifty to the square mile, a minimum ratio for a fertile and well-watered land, where the birth-rate is high and where the population rapidly increases in times of peace. Yet the data supplied by the European possessions, taken in connection with the reports of the most competent travellers, would seem to show that the actual population is far less than had been conjectured from the density of the villages in some of the coast districts, falling in fact to considerably under three millions.

#### PROGRESS OF DISCOVERY.

Over five centuries have passed since Europeans first had any direct or hearsay knowledge of Senegambia. Apart from the Periplus of Hanno, J. Ferrer's expedition of 1346, in search of the "river of gold," and the voyages of the Dieppe navigators, begun in 1364, it is certain that through their friendly relations with Tunis the Venetians were already, in the fifteenth century, acquainted with the name of Timbaktu and other Sudanese towns. On the Catalanian map of 1375 are figured the inhabited lands which stretch south from the Sahara, and two names especially had become famous, Ginyia (Ginea, Ghenni, Ginea, Guinoye), the city rich in gold, identified by most geographers with Jenné, and the "river of gold," which is the Senegal. To reach "Guinea" and to discover the river of gold was the great ambition of navigators in those days. Béthencourt, conqueror of the eastern Canaries, had "the intention of opening the route to the river of gold" at "one hundred and fifty French leagues from the Cape of Bugader." But the systematic exploration of these mysterious lands was still delayed for another half century.

In 1434 the Portuguese Gil Eannes at last penetrated beyond the formidable reefs of Cape Bojador, and in 1443 his countryman Muno Tristam doubled Cape Blanco, and coasted the mainland for twenty-five leagues thence southwards. He brought back a few wretched fishermen captured on the Arguin Islands, and the sight of these slaves sufficed to rekindle the zeal of the shrewd traders, who were beginning to reproach Prince Henry for the costly and useless expeditions along the Saharan coast. Quite a little fleet sailed from Lagos in 1444 for the Arguin Archipelago, and its operations turned out greatly to the profit of the shippers. "It pleased God, rewarder of good deeds, to compensate the navigators for the many hardships undergone in His service, and to award them at last some triumph and glory for their sufferings, and compensation for their outlays, for they possessed themselves of one hundred and sixty-five heads of men, women, and children"



(Azurara's Chronicle). But next year the Portuguese slavers were less fortunate, for Gonçalo de Cintra having stranded on a sandbank, was suddenly set upon by the natives and massacred with all his followers.

The year 1445 is one of the glorious dates in this century of great discoveries. The mariner Diniz Dias, Diniz Fernandez, as the name is variously written by contemporaries, leaving behind him the sandy or rocky Saharan coasts, sailed beyond the first clump of palms on the strand south of the desert, and after passing the mouth of the Senegal, doubled the extreme western headland of the continent. By this discovery of Cape Verd was once for all exploded the Aristotelian theory, so discouraging for previous navigators, that the solar rays must scorch the ground in the south of the world, and render impossible the germination of plants, the development of all animal or human life. Henceforth the analogy of the climatic conditions in the northern and southern hemispheres was an established truth.

One of the twenty-six caravels which in 1445 sailed from Portugal for the African coasts discovered the mouth of the "Canaga," that river of gold which was at the same time regarded as a branch of the Egyptian Nile. Next year, Nuno Tristam, who had been the first to double Cape Blanco, penetrated south of the island now bearing his name, to a little coast stream, where he was suddenly surrounded, perishing with nearly all his companions. This was most probably the river afterwards known as the Rio Nuno, or Nunez. Alvaro Fernandez pushed forward the same year to the neighbourhood of Sierra Leone, which, however, was not passed for some fifteen years later. In three years all the Senegambian coast had been explored and most of the estuaries surveyed; but the slave-hunting practices rendered all expeditions to the interior extremely dangerous. Nevertheless regular commercial relations were at last established at certain points, factories and forts sprang up on favourable sites, and from the beginning of the fifteenth century the Portuguese, penetrating north of the Senegal into Adrar, began to trade with the people of Wadan, 420 miles east of their station at Arguin.

From the seventeenth century the Dutch, English, and French contended with the first conquerors for the possession of the Senegambian coast, and traders of these nationalities pushed into the interior of the continent. But geographical exploration, properly so called, first began with André Brûe, director of the "French Company in Senegal," at the end of the seventeenth and commencement of the eighteenth century. He penetrated into the region of the Upper Senegal above the confluence of the Falmé, and sent several explorers into the riverain districts along the main stream. The monk Apollinaire visited the gold country in Bambuk, which was traversed in all directions by Compagnon. The map prepared by him and published in Labat's work contains some details which have not yet been verified by any modern explorers.

In 1786 Rubault surveyed the thinly peopled tracts between the Gambia and the northern bend of the Senegal, and other trips were made into the basin of the Gambia. Then Mungo Park, charged with a mission of discovery by the London African Association, mother of all contemporary geographical societies, made a

first expedition in 1795 from the coast to the Niger, whence he returned to

Fig. 46.—VIEW ON THE BANKS. FORD OF MOHAMA FATA.



the Gambia with a trading caravan. In 1818 Mollien first reached the central

mass of the Futa-Jallon highlands, whence the waters flow east to the Niger, north to the Senegal, west and south to the Gambia, Rio-Grande, Searcies, and Rokelle. Since this memorable journey the country has been repeatedly traversed, especially by French naturalists, military and naval officers. While Braouëzee and other sailors were studying the estuaries on the coast, French or native officials, such as Panet, Aliân-Sal, Bu-el-Moghdad, Vincent, Soleillet, were surveying the steppes north of the Senegal, and connecting with the Saharan oases, and even with Morocco, the network of itineraries in Senegambia. About the same time Mage and Quintin were pushing eastwards to the Niger basin and advancing in the direction of Timbuktù, which was occupied by the French in 1894.

The Gallieni expedition of 1880 formed a fresh point of departure for the extensive geographical studies which went hand in hand with the work of conquest between the Senegal and the Niger. Throughout the whole region connecting Saint Louis on the coast with Bamaku on the Joliba, the preliminary explorations were followed by more accurate surveys for determining the relief of the land, and certain sections of the Senegal are now figured on our maps with the same fulness of detail as the European countries. As in Algeria, Egypt, the Cape, and at all points of the seaboard where busy European communities have been developed, science is slowly but surely prosecuting its work of conquest.

#### THE FUTA-JALLON HIGHLANDS.

A certain geographical unity is given to Senegambia by the massive Futa-Jallon highlands, where rise the headstreams of the Senegal, Gambia, Casamanza, Geba, Rio-Grande, Nunez, Pongo, Searcies, which diverge thence in various directions coastwards. These uplands thus constitute one of the salient features in the formation of West Africa, and it is not perhaps surprising that their size and importance were exaggerated by the early explorers. Lambert, who visited them in 1860, assigned an elevation of 10,000 feet to the Sun-du-Mali (Sudumali), one of the loftiest summits near the centre of the range. He even supposed that the highest points, reported by the natives to be snow-clad during the wet season, might have an altitude of over 13,000 feet, nearly equal to that of the Abyssinian Simên on the opposite side of the continent. But Lambert had taken no accurate measurement, and ten years afterwards Heequard took only five hours to ascend Mount Maminia, some 30 miles west of the Labé plateau, which had also been described as exposed to "white rains," but on which he found no trace of snow. If the Futa-Jallon hills approached the altitudes spoken of by Lambert their crests would be visible from the lower Falmé and middle Gambia, whence at a distance of 90 miles they cannot be detected. Nor do more recent travellers, such as Bayol, Noirot, and Ansaldo mention any such heights, while the loftiest pass crossed by Olivier near the source of the Kakrima was found to be only 3,370 feet high. At the village of Bogama, near the central Sudumali peak, Bayol and Noirot reached an altitude of 4,600 feet, above which rose other crests, which according to the extreme estimates of the Portuguese Simões may possibly exceed 6,500 feet; but in any case the mean elevation cannot be more than 4,000 feet.

This highland system, which begins on the Senegal in the Bondou district, does not appear to develop a regular chain till it approaches the great bend of the Gambia. It runs mainly in the direction from north to south, with a slight eastern deflection, for a total length of about 180 miles. But beyond the sources of the Senegalese Bafing the chain is continued by other little-known mountains south-westwards to the hills, from 3,500 to 4,500 feet high, which command the sources of the Niger. In Senegambia the most abrupt slope faces eastwards in the direction of the Gambia and Falémé, and a large part of the system consists of *baouals*, or slightly rolling plateaux strewn with scattered boulders and broken by steep escarpments.

Geologically, Futa-Jallon forms a nucleus of crystalline rocks encircled by more recent formations, and by most travellers described as consisting of granites, gneiss, and "primary sandstones." Northwards and north-eastwards this crystalline and schistose mass is continued by other parallel ridges, such as the Tambaoura of Bambúk, where almost inaccessible rocky walls rise abruptly about the surrounding verdant plains, and the heights of Kenieba, affecting the form of truncated cones. The secondary ridges are intersected by river valleys, whose sands and clays contain particles of gold washed from the primitive rocks. Through this auriferous alluvia the headstreams of the Senegal have excavated their convergent beds. Between the Bafing and the Bakhoy, the two main forks of the Senegal, the hills running parallel to the Niger consist of horizontally stratified sandstones, above which crop out granite, hornblende, quartz, and feldspar blocks of fantastic shape. Even north of the Senegal as far as the sands of the desert, the lines of hills and terraces consist of sandstones dating from the same epoch.

In Kaarta the Saharan cliffs, whence flow the intermittent affluents of the Senegal, have a mean height of from 1,000 to 1,070 feet, and the hills are here formed of bluish slaty schists overlain with deposits of laterite. Farther west the heights are more regularly disposed in chains running mostly in the direction from north-east to south-west. The surface looks as if it had been furrowed by a gigantic plough, leaving between the trenches parallel ridges with their steep side facing east and sloping gently westwards. The western crest of Halip Anaghim, forming the north-west limit of the Senegal basin, rises to a height of 1,350 feet.

West of the Senegambian gneiss and schists follows a deposit of ferruginous sandstones or laterites, an ochreous mass formed by the disintegration of the older rocks, and occupying all the Senegambian seaboard, except where the streams and tides have deposited their alluvia. Towards the west these ochreous sandstones contain a continually increasing proportion of iron, and in many places the ground looks as if it were covered with ferruginous refuse like the neighbourhood of a smelting furnace.

#### THE SENEGAMBIAN SEABOARD.

The Senegambian seaboard is disposed in three distinct geological sections, the first extending from Cape Blanco to Cape Verd, the second from Cape Verd to Cape Roxo ("Red"), the third thence to the island of Sherbro. Taken as a whole

the curve of about 500 miles developed between Capes Blanco and Verd constitutes a separate geological area, fringed north and south of the Senegal by lofty dunes, and describing a regular arc except in the north, where the coastline, eaten away by erosion, is now replaced by a sandbank, over which the surf rolls in long breakers. Farther south, also, the alluvia deposited by the Senegal has advanced beyond the normal shore-line, forming a convex segment about 120 miles long, with a mean breadth of some 12 miles. But landwards, behind the range of coast dunes, the same geological formations everywhere prevail. Both north and south of the Senegal, towards the Sahara as well as towards the Gambia, the ground consists of ferruginous laterite deposits. \* Even the two extreme capes, Blanco and Verd ("White" and "Green"), present small prominences which seem to date from the same geological epoch.

The section of the seaboard between Capes Verd and Roxo develops a curve of about 165 miles with its concave side facing eastwards. The original shore-line, as revealed by the tongues of sand and submerged bars at the river mouths, is extremely regular, although deeply indented by the fluvial estuaries, whose alluvia are widely spread over the older ferruginous sandstone deposits. On the other hand, the third section between Cape Roxo and Sherbro Island has lost all appearance of regularity, being carved by the waves into a thousand inlets of all sizes, or broken into islets and reefs, now strewn over the neighbouring waters. But in other respects this southern section presents the same alluvial and laterite formations as the seaboard north of Cape Roxo.

The indented parts of the Senegambian coast lie in exactly the same latitude as the Futa-Jallon highlands, and between the two formations it is easy to detect a relation of cause and effect. The streams flowing from the uplands have excavated the valleys and to some extent contributed to the creation of the marine estuaries; but glacial action may also have had its share in the general result. Doubtless the climate is now very different from that which must have prevailed when frozen streams were slowly descending down to the Senegambian plains; but in this respect the African seaboard offers precisely the same conditions as those of Brazil and New Granada, where traces of glaciation have also been detected by Agassiz and other observers. The erratic granite boulders occurring on the sandstone plains of Sierra Leone can scarcely be otherwise accounted for; consequently to the action of glaciers should perhaps be largely attributed the destruction of the Senegambian seaboard, causing it to retire some 60 miles inland.

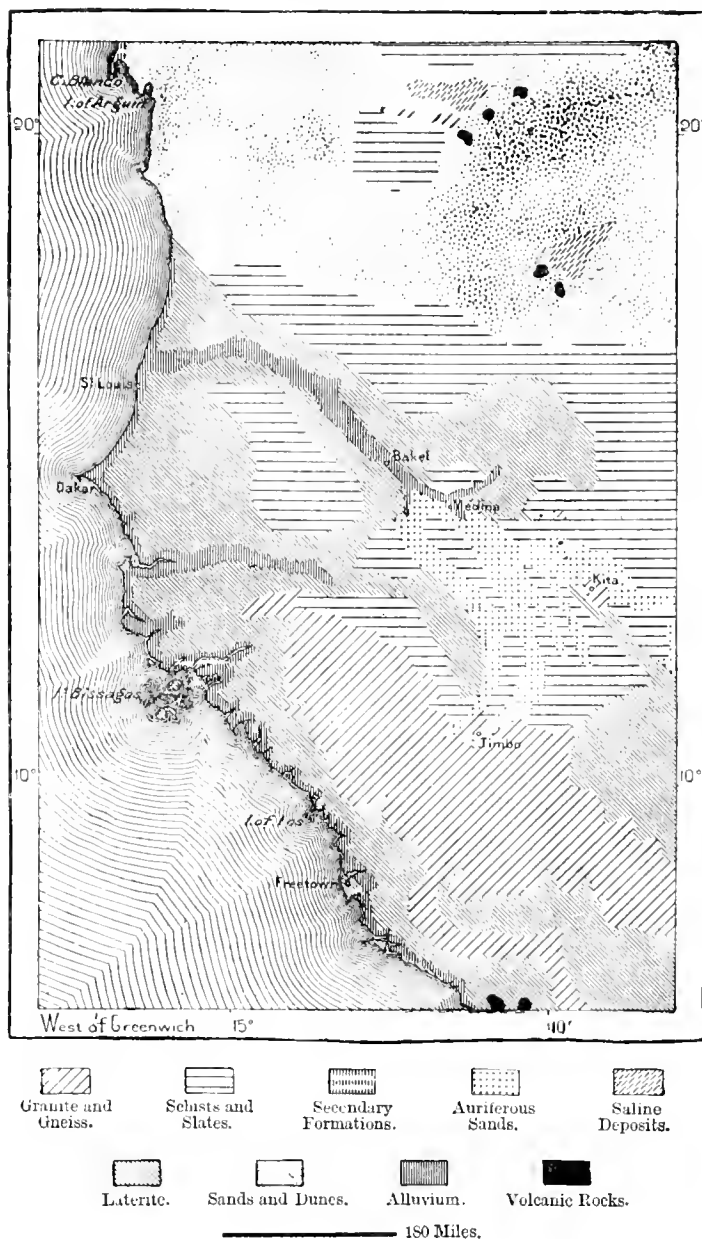
#### POLITICAL AND SOCIAL RELATIONS.

Occupying nearly twelve degrees of latitude, and rising to an extreme height of over 6,000 feet, Senegambia naturally presents a great variety of plants and animals, belonging, however, to two distinct domains, that of the neighbouring Saharan savannahs and that of the great Nigritian forests. Great contrasts are also presented by its inhabitants, who possess neither political unity nor social

coherence. They belong to diverse stocks, broken into numerous states, kingdoms, centralised or federal republics, religious communities, nomad tribes, scattered family groups. The central Futa-Jallon highlands are occupied chiefly by Fulahs,

Fig. 47.—GEOLOGICAL MAP OF SENEGAMBIA.

Scale 1 : 13,000,000.



a swarthy race not to be confounded with the Negroes proper. Round about them, on the sea-coast and on the upper affluents of the Senegal and Gambia, dwell

numerous Nigritian tribes, while more or less mixed Berber groups roam over the tracts to the north of the Senegal.

Intercourse with the European traders has created new centres of attraction for these various peoples, thus modifying their social aggregates and alliances. The West European States, influenced by the interests of their respective subjects, have moreover forcibly occupied or secured by treaty and purchase the districts bordering on the central markets. Thus Portugal, the first to arrive as a conqueror, possesses the Bissagos archipelago and a part of the adjacent coast, a mere fragment of a domain which once stretched away to the boundless regions of Sudan. England has established her trading stations at the mouth of the Gambia, and in several other places in that basin. But France has annexed a far more extensive territory, embracing all the coast from Cape Blanco to the river Salum, a stretch of 450 miles, and the fluvial zone extending for 150 miles between the Nuñez and the Mallecory rivers. Between these two great coast regions the basin of the Casamanza forms an enclave also assigned to France, while in the interior the possessions of the same power stretch from Cape Verd in a straight line for over 600 miles eastwards beyond the sources of the Senegal right away to the Niger. Lastly, in virtue of a treaty concluded with Portugal in 1886, the Futa-Jallon highlands have been, if not annexed at least declared a French protectorate. In the same way, by agreement with Great Britain the Upper Joliba basin has been reserved as a field for the future expansion of French political influences.

But these are mere outward political changes, and although many writers still regard the Negroes as an immovable race incapable of progress or improvement, great revolutions have already taken place, profoundly modifying their social condition. The gradual spread of the conquering races from east to west has been continued, the Mandingoes encroaching on the coast populations, while the Fulahs have already reached the marine estuaries. The Mussulman propaganda accompanies and even precedes these ethnical displacements, and many independent black communities have already adopted Islam, which however in most cases acquires a mystic character more vague, less dogmatic and less rigid than amongst the Arabs.

Usages and industries also become modified through the displacements, interminglings of races, fresh political combinations and religious conversions. And while these great changes are progressing in the interior, the foreign traders established on the seaboard act as a counterpoise to the westward movement of the Mandingoes and Fulahs, and constantly acquire greater influence through their expanding commercial relations. The object of their traffic has also changed. They no longer purchase man himself, as they had done for nearly four hundred years, but rather the fruits of his industry; and with the suppression of the slave trade the incessant intertribal wars caused by it are gradually coming to an end.

Thus this great event is of vast importance in the renovation of Africa. But although whites and blacks no longer mutually consider each other as anthropophagists, the responsibility for the horrors committed remains uneffaced. If men

are no longer directly purchased, the European dealers continue the work of moral degradation. While reproaching the Negro populations with cruelty they incite them to war; while complaining of their intemperate, depraved, or indolent habits, they persist in supplying them with fiery alcoholic drinks. The real value of European influences is not to be estimated by flourishing trade returns. The natives in sharing their land with the stranger have a right to demand in return the substantial benefit of increased moral and intellectual well-being as well as mere material progress.

#### SENEGAL BASIN AND FUTA-JALLON.

The regions either directly administered by France, or in which her military ascendancy is uncontested, may be roughly estimated at 200,000 square miles, or very nearly the area of France itself. The term Senegal, by which French Senegambia was until recently designated, has naturally been replaced by the more comprehensive expression, French Sudan. The former name, however, is still reserved for the territory skirting the navigable part of the river between Saint-Louis and Medina. At the same time to this great artery the whole region undoubtedly owes its geographical unity, just as from its name, combined with that of the Gambia (Senegal-Gambia), it takes its general designation of Senegambia.

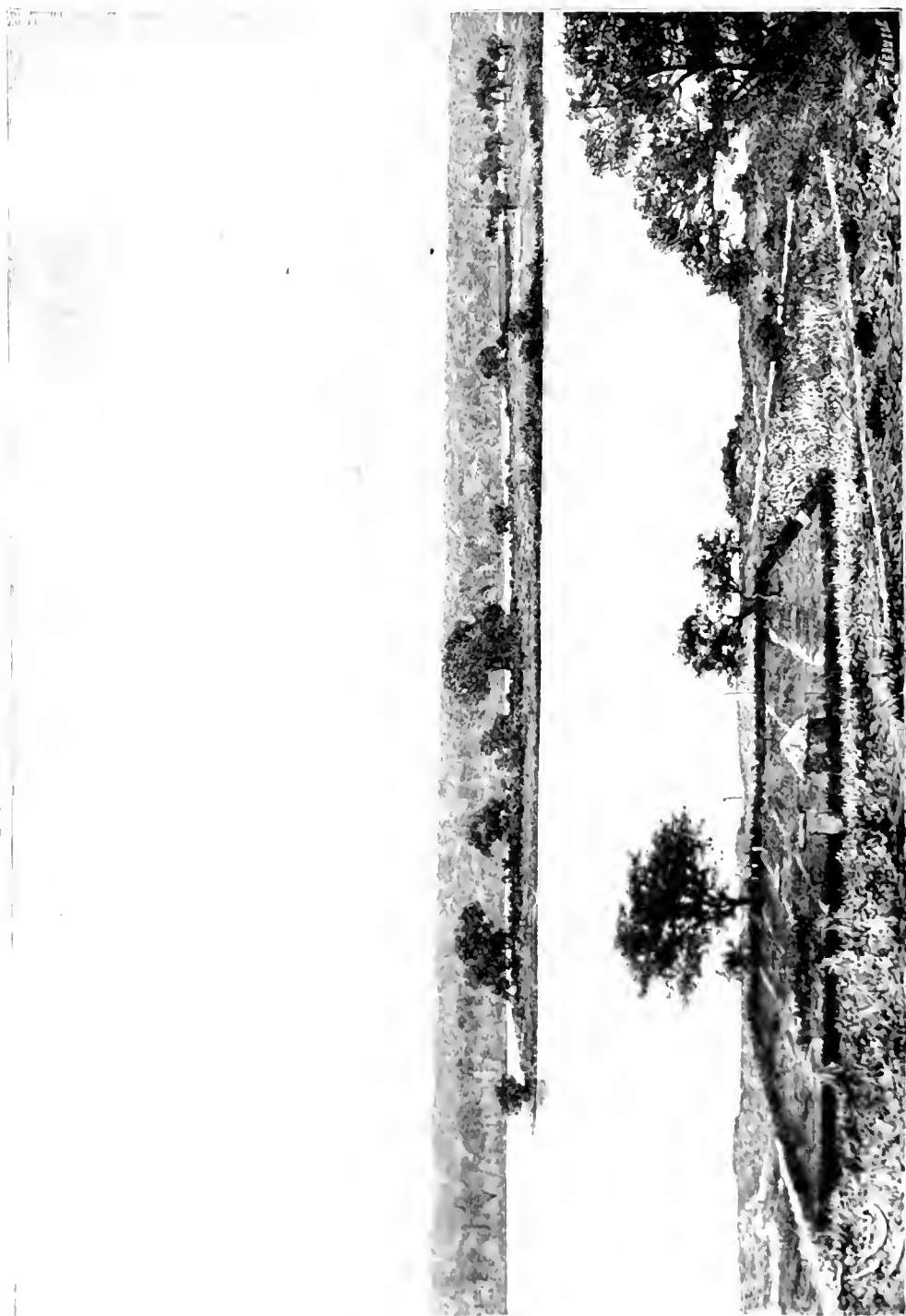
The Senegal is the first perennial stream which reaches the south coast of the Saharan wastes. Between its mouth and that of the Um-er-Rbia the last permanent Moroccan River, the distance in a bee-line is no less than 1,320 miles, and 1,800 including the indentations along the coastline. Throughout its course and that of its numerous tributaries the Senegal indicates the northern limit of the zone of abundant periodical rains. Its bed prolongs westwards the winding line of running waters formed eastwards by the Niger, the Tsad affluents, and the great tributaries of the Nile—the Bahr-el-Arab and Bahr-el-Azraq. It was possibly owing to a vague idea of this geographical fact that, down to the last century, mention was at all times made of a Nile with many mouths traversing the whole of Africa. According to the traveller Cadamosto the “Senega” is at once the Gihon, “river of the earthly paradise,” the Niger, and the Nile.

In the extent of its basin the Senegal ranks only as a secondary African river, being inferior not only to the Congo, Nile, Joliba, and Zambesi, but according to some approximate estimates, even to the Limpopo, Orange, and Juba. But great discrepancies prevail on this point; and while Chavanne calculates the Senegal at 176,000 square miles, Von Klöden reduces it to little over 103,000 square miles. These discrepancies are due to the fact that the Saharan slope of the river has not yet been accurately surveyed, and that some include this region of intermittent wadies in the Senegal basin, while others bring it within the zone of inland drainage. According to the former view the Senegal must have in any case an area of 145,000 square miles, or very nearly two-thirds of the whole of France. From the source of the Bafing to the bar at its mouth, the total length is as nearly as possible 1,000 miles, but as the bird flies not more than 170 miles.



The farthest headstream, rising within a few miles of the left bank of the

FIG. 18.—CONFLUENCE OF THE BAFING AND BARHOY.

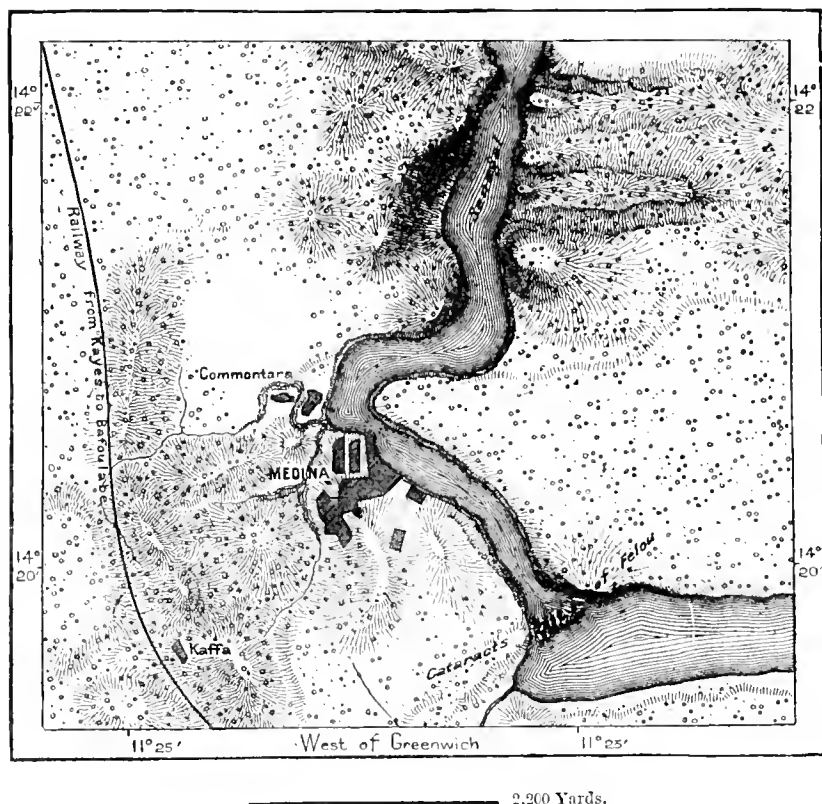


Niger, takes the name of Baulé, which, however, changes incessantly according to

the countries it traverses and the population residing on its banks. Below the hilly district where it has its source, it waters the little-known Bélé-Dugu territory, beyond which it trends westwards, here forming the border-line between Senegambia and Kaarta. In this section of its course it receives but few and slight contributions from the northern or Saharan slope; but from the south it is joined by some copious streams, such as the Bakhoy, which gives its name to the main stream below the junction, and which by its confluence with the Bafing forms the Senegal, properly so called. Bafulabé, or the "Two Rivers," is the local Malinké name of

Fig. 49.—THE FELU FALLS.

Scale 1: 60,000.



this confluence of the Bakhoy, or "White," with the Bafing, or "Black" river; the designation Maio-Reio given to it by the Fulahs and Toucouleurs, has the same meaning.

The Bafing rises at an elevation of 2,500 feet in the southern part of the Futa-Jallon highlands, south of the sources of the Falémé, Gambia, and Rio-Grande. After flowing some distance southwards it describes a great curve to the east, north-east, and north, thus forming a semi-ellipse with the lower course of the Senegal. Having a very steep incline between its source and the Bakhoy confluence, and receiving no rainwater for nine months in the year, the Bafing would cease to

flow in the dry season, but for the natural barriers dividing its course into a series of basins with an almost imperceptible current between the periods of high water. During the rainy winter season the stream passes by numerous rapids from ledge to ledge of these dams, which are again exposed in the rainless months.

At the confluence of the Bakhoy and Bafing, the Senegal is still 470 feet above sea-level, and its bed being confined between banks from 100 to 120 feet high, the stream rushes from rapid to rapid, at that of Guina falling in a single plunge from a height of over 50 feet with a mean breadth of 1,600 feet. The Felu Falls, the last of the series, are of the same height, but here the river is much more contracted. At the foot of the cataract it reaches a level of 220 feet above the sea, from which it is still distant some 600 miles. Hence, the mean incline is here very slight, so that during the season of high water large craft are able to ascend as far as the falls.

A little farther down the Senegal receives its chief northern affluent, the Kuniakari, or Tarakolé, which has a total length of at least 120 miles. But the contributions of this feeble Saharan tributary are as nothing to those of the Falémé, which joins the main stream lower down after collecting the copious waters of the Futa-Jallon uplands. Rising near the Bafing and Gambia, the Falémé sends down a little water even in the dry season, while in winter it is no less than 1,000 feet broad and 26 feet deep at the confluence. It might be navigated for some hundred miles by small craft, but its upper basin, unhealthy and frequently wasted by wars, had been very little explored before the district was traversed by the military and surveying expeditions of the years 1890-98.

Below the Falémé junction the Senegal receives no more perennial tributaries, for it here flows north-west beyond the region of copious rains, and penetrates into the zone of transition between Sudan and the desert proper. Several of the intermittent Saharan wadies run out in saline marshes, which in a drier climate would be converted into salt-pans like those of Ijil and other parts of the desert.

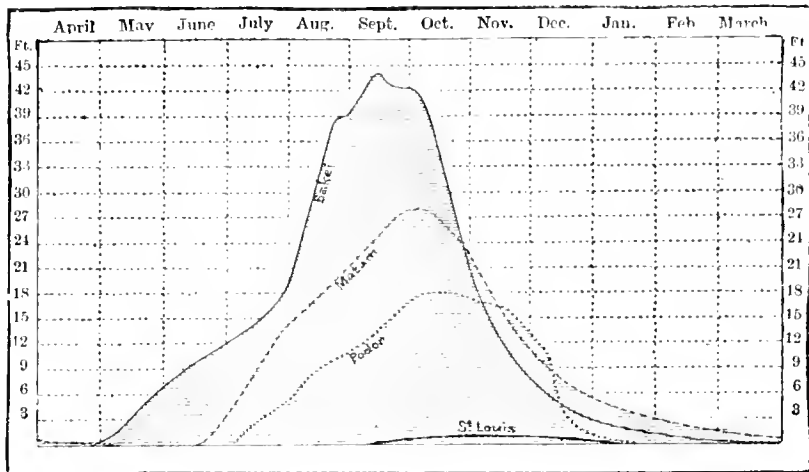
During the dry season the volume of the main stream gradually diminishes, developing long meanders and winding sluggishly round numerous islands, such as the long alluvial land of Bilbas, and the island at Mortil, or "Ivory," so called from the elephants which formerly frequented it. The river bed is intersected at intervals by several rocky ledges, none of which, however, is high enough to completely arrest the stream. But at low water boats have great difficulty in forcing the passage, and the riverain populations are able to ford the current at many points. In the lower reaches small steamers can always ascend as far as Mafu above Podor, 210 miles from the sea; but this is due to the tides, which convert the lower course of the Senegal into a marine estuary. The discharge during the dry season is estimated at not more than 1,760 cubic feet per second.

The great rains, which begin in May on the Futa-Jallon highlands, change the whole character of the river. The water rises rapidly, and from June to October large steamers ascend to the foot of the Felu Falls. At Bakel the floods rise 50 feet and upwards, at Matam 30 to 34, at Podor 20, at Dagana little more than 14, the inundations thus diminishing as they approach the sea. But at this season the

force of the current stems the tidal stream, so that the water is quite fresh at Saint Louis, and even penetrates into the sea, where it may be distinguished by its yellowish colour amid the liquid blue of the surrounding ocean. At this season the discharge is certainly several thousand cubic yards per second, for the stream not only fills the broad and deep fluvial bed, but also overflows both banks, flooding numerous lateral lagoons, or "false rivers," which mark the course of former channels. The inundations even attain an exceptional development about every four years, when in its lower course the river assumes the aspect of a great inland sea from 12 to 15 miles wide.

Towards its mouth the Senegal ramifies to the right and left into numerous channels or tortuous lagoons, here called "marigots," a term also wrongly applied to the permanent tributaries and to the brackish lacustrine basins on the coasts. During the floods these lagoons serve to relieve the overflow, which in the dry season is here husbanded as if in artificial reservoirs. The two largest of these side

Fig. 50.—FLOODS OF THE SENEGAL.



lagoons are disposed on the right and left near the point where the Senegal bends southwards to skirt the coast dunes. The Cayar or Khornak basin on the north or right bank is some 12 miles long, with three outlets to the main stream; while the southern, variously known as the Guier, Paniéful, or Merinaghen Lake, occupies with its affluent, the Bûnûn, a winding valley about 90 miles in length. Even in the dry season this navigable basin retains some water, which attracts wild animals from all directions.

#### THE SENEGAL DELTA.

The delta, some 600 square miles in extent, forms a labyrinth of islands, islets, and marshy banks, separated by streams, channels, and stagnant waters, changing their form and depth with every inundation. The whole of this low-lying tract, half lacustrine during the period of floods, is sharply limited westwards by a

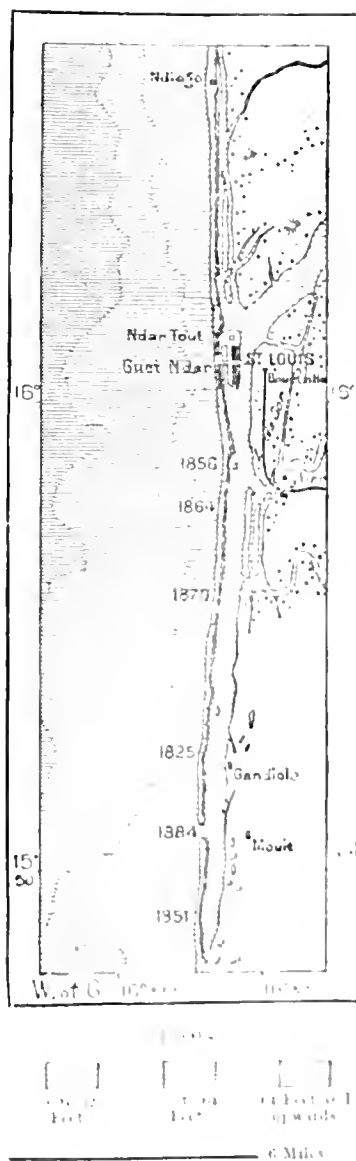
surprisingly regular line of sands, the so-called "Langue de Barbarie," which has a mean breadth of from 400 to 450 yards, and which is strewn with little dunes from 15 to 20 feet high.

Being constantly exposed on one side to the fury of the surf, on the other to the pressure of the fluvial overflow, this sandy dyke yields now at one point now at another, again repairing the breach with the alluvial matter here arrested by the opposing fluvial and marine forces. The curve of the shore-line bears witness to the ceaseless encroachment on the sea which has been going on for ages. The sedimentary matter already deposited beyond the normal coastline, and rising above the surface, covers an area of at least 1,000 square miles, and the range of dunes which at one time developed a regular concave curve between Capes Mirik and Verd now bulges out some 12 miles seawards. Off the delta the waters are also much shallower than elsewhere along the coast, so that the 50-fathom line, running within 2 miles of Cape Verd, is deflected to 18 or 20 miles off the mouth of the Senegal.

During the present period the bar at the entrance of the river has constantly changed its form and position. For a stretch of 13 miles below Saint-Louis, the breach in the sandy dyke has continually shifted up and down, according to the abundance of the fluvial discharge, the force and direction of the fluvial and marine currents, and of the winds and surf. Usually the bar is slowly displaced southwards, owing to the gradual extension of the sandy dyke formed by the combined action of the parallel marine and fluvial currents, both trending in the same direction. But as it gains in length, this narrow tongue becomes more exposed to the pressure of the river, yielding sooner or later at some weak point. It happens at times that the sill breaks into eight or ten distinct channels; but these openings are soon filled up by the action of the two conflicting currents, leaving only a single passage, through which the lighter fresh water spreads over the marine surface, while the heavier salt water penetrates up the river-bed. In 1825 the bar nearly faced Gandiole, 8 miles south of Saint-Louis; in 1851 it had shifted still farther south, almost to the southern extremity

Fig. 51.—BARS OF THE SENEGAL FROM 1825 TO 1851.

Scale 1:300,000



of the dyke. But five years afterwards it had returned to Camel Point, close to Saint-Louis, in 1864 retreating over 2,000 yards southwards, and in 1884 again retiring to a point south of Gandiole. The depth of the channel seldom exceeds 13 or 14, and seldom falls below 8 feet, being shallowest from November to February, and deepest in April and May, at the end of the dry season.

The depth is increased 6 or 7 feet by the tides; but in rough weather the bar is almost inaccessible to shipping, which has at times to wait for weeks either off the roadstead or within the port of Saint-Louis. To obviate this and other inconveniences it has been proposed to create a permanent channel by means of a curved pier forming a continuation of the left bank of the river.

North of the Senegal there are no perennial rivers in the territory politically assigned to France. Nor are there now any streams for a stretch of 180 miles south of the bar, until the Salûm is reached. But according to a well-founded local tradition, the Senegal itself seems to have formerly continued its southern course parallel with the coast under the shelter of the Cayor dunes as far as the Bay of Dakar, below Cape Verd. According to Wendling's careful observations the Cayor formations appear to have been originally fluvial deposits, which became attached to the islet of Dakar, and were afterwards covered by marine sands. South of Cape Verd the shore-line curves round towards the south-east, thus describing an arc corresponding to that of the Cayor dunes. Here a few streamlets reach the coast; but north of the Gambia the seaboard is broken only by the large island-studded estuary, which is sheltered from the sea by the long peninsula terminating at Point Sangomar, and which towards the north-east mingles its waters with those of the Salûm, a coast-stream navigable for some 60 miles.

#### CLIMATE OF THE SENEGAL BASIN.

The Senegal year is divided into two periods of nearly equal length, the dry season, answering to the summer of the southern hemisphere, from the end of November to the beginning of June, and the wet, which is also the hottest, for the rest of the year. During the former the trade winds prevail, occasionally interrupted near the sea by local breezes blowing from the north-west and west. Thanks to these atmospheric currents and to the cool marine current setting from the north, the temperature is relatively moderate along the seaboard, oscillating at Saint-Louis and at Gorée round a mean of from 68° to 70° F. But in the interior this dry season is again divided into two periods corresponding somewhat to the winter and spring in Europe. The winter, if not cool, is at least almost temperate (77° F.); but in the spring, when the hot east Saharan winds predominate, the glass stands normally at 90° F.

The changes from season to season are usually ushered in by the "tornadoes," small local cyclones, generally lasting from fifteen minutes to an hour, and nearly always wheeling from the south-east and east round to the north and west, reversing the direction of the normal wind. They are violent gales which, when unaccompanied by rain, may even become dangerous.

During the four months from July to October inclusive, when the "hivernage" or rainy season is at its height, the prevailing winds are weak and variable, the mean temperature (80° F.) is very constant, and the air saturated with moisture. Rains and thunderstorms are frequent, the river overflows, the swampy tracts are flooded. Although the same conditions prevail everywhere, the rains begin somewhat earlier in the interior than on the coast, and the season lasts considerably longer at Gorée than at Saint-Louis. The humidity is on the whole considerably less than in most other tropical regions, and Saint-Louis has on an average scarcely more than thirty rainy days with an annual rainfall of less than 20 inches. In the interior lying farther south, and at Gorée, the proportion appears to be somewhat higher, and at Kita there was a rainfall of over 50 inches in 1882. Hail, almost unknown elsewhere in the tropics, is not rare in Kaarta, where "hard water," as it is called, is regarded as a valuable medicine.

#### FLORA.

Lying on the frontier of the Saharan and Sudaneso zones, French Senegambia resembles both these regions in its flora. The northern vegetation is allied to that of the neighbouring Saharan steppes, while the southern assumes a more tropical aspect, the variety of forms increasing in the direction of the equator. Although some species are peculiar to Senegambia, this region is far from presenting the same diversity as other tropical lands. During five years of exploration, Leprieur and Perrottet collected only sixteen hundred species, a very small number compared with the exuberance of the Indian, Australian, and South American floras. Some extensive tracts are occupied by a few graminaceæ to the exclusion of all other forms. These are fired by the herdsmen in the dry season, and the conflagrations caused by them prevent the development of large forest growths.

As in the corresponding Nubian regions, where grassy savannahs also prevail, there are numerous gummiferous plants, such as the acacias, which cover whole districts north of the Senegal. Even in the south the most widespread tree is the *goniaké*, or *Adansonia* acacia, whose hard, close-grained wood yields an excellent material for ship-building. On the coast the characteristic plants are the arboresecent malvaceæ, the gigantic baobab, and the bombax. In Senegal the baobab was first studied by Adanson, whence its botanical name of *Adansonia digitata*. But so early as the beginning of the sixteenth century Cédamosto already spoke with amazement of these stupendous growths, which yield the so-called "monkey-bread," eaten also by man. Still larger and of more symmetrical form than the weird-like headless baobab is the bombax, whose enormous aerial roots form large recesses, in which travellers take refuge for the night and where "palavers" are sometimes held. Although usually regarded as the fetish tree in a pre-eminent sense, some of the natives convert the stem into canoes of 18 or 20 tons burden. The down of its fruit, too short and fragile for weaving purposes, supplies a substitute for touchwood.

The cocoa-nut, now abundant in Lower Senegal, is of comparatively recent

importation, and the date-palm occurs chiefly in the neighbourhood of Bakel and

Fig. 52.—BAOBAB ON THE KOTUBADANTA RIVER, SOUTH-WEST OF BAMAKU.



about the Falémé confluence, which is its southern limit. The wild forest plants yield scarcely any edible berries or nuts beyond the small red fruit of the *siden*,



a thorny zizyphus, which flourishes on the Upper Senegal and Falémé. In Kaarta and other regions of the interior the vine grows spontaneously, even yielding a savoury grape, which, however, none but the children ever think of gathering. The attempts to introduce this vine into France have failed, and even in the country it has been found impossible to graft it.

Besides the species already known in commerce, botanists mention hundreds of woody or grassy plants, whose seeds, roots, bark, sap, gum, foliage, or fruit might be turned to profitable account. One of the most remarkable is the *karité* (*Bassia Parkii*) of the Bakhoy, Falémé, and neighbouring districts, which has acquired the name of the butter-tree, from the fatty substance of its fruit, the *cé* of the natives and *shea* of English writers. The *guru*, or *kola* (*Stereulia acuminata*), whose root will render even foul water pleasant to the taste, forms extensive forests on the Upper Senegal and in Futa-Jallon.

#### FAUNA.

Like the flora, the Senegalese fauna belongs to the two conterminous regions of the Sahara and Sudan. In the northern steppes and those of Futa, the Arabs hunt the ostrich, which is even domesticated in many villages. The giraffe and various species of antelopes are still met on the grassy plains dotted over with clumps of trees which stretch from the great bend of the Senegal southwards in the direction of the Salum and Gambia. The well-watered and fertile tracts remote from human habitations still afford a refuge to the elephants, who roamed in herds of forty or fifty over the savannahs in the eighteenth century, and who so recently as 1860 were occasionally seen in the neighbourhood of Lake Paniéful, or even crossed the lake into the lower delta. Nor has the hippopotamus yet disappeared from the Upper Senegal, while the wild boar frequents all the thickets. The grey monkeys are the only quadrumana seen on the coastlands; but multitudes of cynocephali inhabit the forests of the interior. These baboons constitute little republics in the neighbourhood of the cultivated tracts, where they commit great depredations amongst the crops. Yet some of the tribes near Bakel claim to have made a treaty of peace with the monkeys, in virtue of which their lands are exempt from pillage. Winwood Read asserts that these animals combine to attack the panther, usually killing him after losing many of their members.

Beasts of prey, scarcely ever seen in Futa-Jallon, are numerous and formidable throughout the Bambuk district. The lion, here maneless, but as large as "the lord of the Atlas," haunts the steppes north and south of the river, and is frequently seen prowling about Dagana in the dry season. He is said never to attack women, and even to make way for them; but in the Jolof country the people speak with dread of a black lion who does not hesitate to fall upon men. No European hunter has ever seen this animal, but mention is frequently made of other rapacious beasts, such as panthers, leopards, tiger-cats and wild cats, lynxes, hyenas, and jackals.

Birds are very numerous near the forests and marshy districts. The *sui-manga*, a living gem like the humming-bird of the New World, all sparkling with gold and metallic lustre, is seen at times to flash amid the emerald foliage. The

passerine family is very numerously represented in Senegal, and several of its varieties, such as the cardinal, the widow-bird, and senagali, have become familiar ornaments of the European aviaries. The local variety of the parrakeet, much dreaded by the growers of millet, is in great request amongst the bird-dealers of Saint-Louis. A more useful bird is the *dobine*, or black stork, which preys freely on all kinds of reptiles, lizards, venomous snakes, the green adder, and even small boas. In the rivers and lagoons are found the electric fish and two species of crocodile, "one that eats man, and the other eaten by man."

#### INHABITANTS OF THE SENEGAL BASIN.

In its ethnology as well as its flora and fauna, French Senegambia is a land of transition, where a sharp contrast is presented between the Arabised Berbers from the Mediterranean seaboard and the Nigritians from the heart of Africa.

The Senegalese "Moors," although of northern origin and calling themselves former vassals of the Emperor of Morocco, have nothing but their name, language and religion in common with the Mauritanian Moors. So far from being civilised members of settled communities, most of them live in the nomad state, wandering with their herds from camping-ground to camping-ground, and pursuing men and animals on the open plains. Descended from the Zenaga Berbers, who gave their name to the Senegal river, they have largely intermingled both with the Arabs and with the subjected Negro population. Hence amongst them is found the whole series of types, from the swarthy southern European with broad brow, regular nose, and thin lips, to the flat features, pouting lips, and crisp hair of the Negro. The lighter element is represented chiefly by the Hassans, or horsemen, and the Marabouts, or religious class. As nobles, conquerors, and Mussulmans of the old stock, both of these look upon themselves as superior to the lower castes, whom they speak of contemptuously as *lahme*, or food. The Hassans plunder their subjects by brute force; the Marabouts swindle them by medical jugglery and magic arts. "Remember that the Marabout must always take and never give," said one of these men of God to René Caillié. "Gratitude is the virtue of vassals and captives, unworthy of superior beings," is another of their edifying axioms.

The subjects, who are the true nobles, being descended from the first owners, constitute the bulk of the primitive Zenaga population, beneath whom are the captives, nearly all blacks obtained by conquest or purchase from every part of Sudan. The fair element is said to form about a twentieth, the blacks one-half, and the half-caste Berbers and Arabs the rest of the Senegalese Moors. The numerous geographical terms in the western districts north of the Lower Senegal attest the long persistence of the Berber dialects amongst the Zenagas. One of these dialects alone survives amongst a few groups of the Trarza people, amongst the Marabouts, and the Lamtuna branch of the great Dwaish confederation. Elsewhere the Beïdan Arabic dialect has everywhere supplanted the Berber speech.

But whatever be their origin, the Moors have a proud spirit and noble courage. They are inured to the hardships of long expeditions, and surprisingly frugal when not living at the expense of others. As in so many parts of Africa, the young

women are fattened for matrimony, and in several tribes their upper incisors are made to project forward so as to raise the upper and rest on the lower lip.

Despite their tribal feuds and caste prejudices, the Mohammedan Moors have always combined against the hated Christian. The French have failed to reduce by dividing them, and although far less numerous than the black populations of the Senegal basin, they have resisted the encroachments of the whites far more resolutely. In war they are pitiless, after the battle sparing only the women and children. The Negroes have many axioms breathing the spirit of hatred which they cherish against their Berber oppressors. "A tent shelters nothing honest unless it be the horse that carries it;" "If a Moor and a viper cross thy path, kill the Moor," are sayings current among the Jolofs, and perhaps sufficiently accounted for by the Arab maxim that the Negro "must be trampled under foot and impoverished to make him submissive and respectful."

Although split up into endless clans, sects, and sub-groups of all sorts, the Moors constitute two natural divisions only, the northern tribes, who never leave the steppes verging on the desert, and the Guebla, or southern tribes, who migrate to and fro between the fluvial trading-stations and the camping-grounds of the interior. But for political and commercial convenience the French have classed them in the three great groups of the Trarzas, Braknas, and Dwaish, to whom they assign a collective responsibility for the observance of the treaties. In virtue of these treaties they can no longer cross the Senegal except as guests and friends, the only Moorish tribe now settled on the left bank being the Dakalifas, to the west of lake Paniéful.

The Negro Wolofs still remember the time when the Ganar district north of the Lower Senegal was occupied by them. But they were compelled to withdraw

Fig. 53.—TRARZA TYPE.

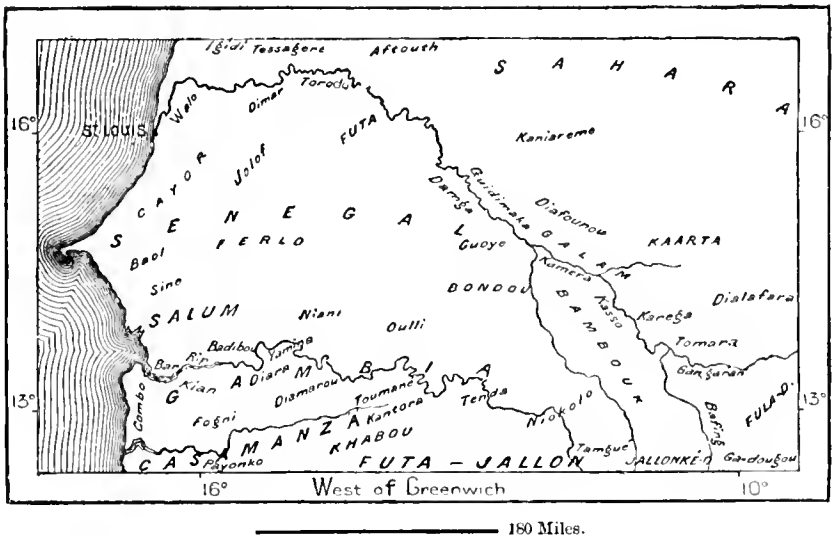


before the marauding Trarzas, and the whole territory to the gates of Saint-Louis gradually fell into the hands of the Moors. Even down to recent times the marauding Trarzas, crossing the river at low water, raided over the plains stretching southwards to the Dimar and Cayor districts. But in 1858 they were finally driven back, and now occupy a tract of about 60 miles on the north side of the river. Higher up follow the Bracknas, and beyond them the Dwaish (Ida-u-Aish), both holding a territory 120 miles in extent.

North of these three riverain groups are many other Arab and Berber tribes less known to the French, such as the Ulad-el-Haj, and further east the Ulad-Embarek and the Sidi-Mahmud, reckoned the most skilful of ostrich-hunters,

Fig. 54.—NATURAL DIVISIONS OF SENEGAMBIA.

Scale 1 : 9,000,000.



capturing the birds by means of leaden balls attached to thongs without injuring the plumage or shedding a drop of blood.

Besides the Moors, both sides of the river are occupied by a few half-caste communities intermediate between the Berbers and Negroes, and generally known collectively as Porognes. This term, however, which corresponds somewhat to that of Haratin farther north, is in some places applied to the full-blood Negroes in captivity amongst the Moors. But great confusion prevails everywhere in the ethnical nomenclature, so that at times a certain vagueness attaches even to the names of the great Senegalese and Sudanese groups, such as the Fulahs, Wolofs, Sarakolés, and Mandingoes. Of all these nations the Wolofs and Sarakolés appear to be, if not the true aborigines, at least the longest settled in the country.

#### THE WOLOFS.

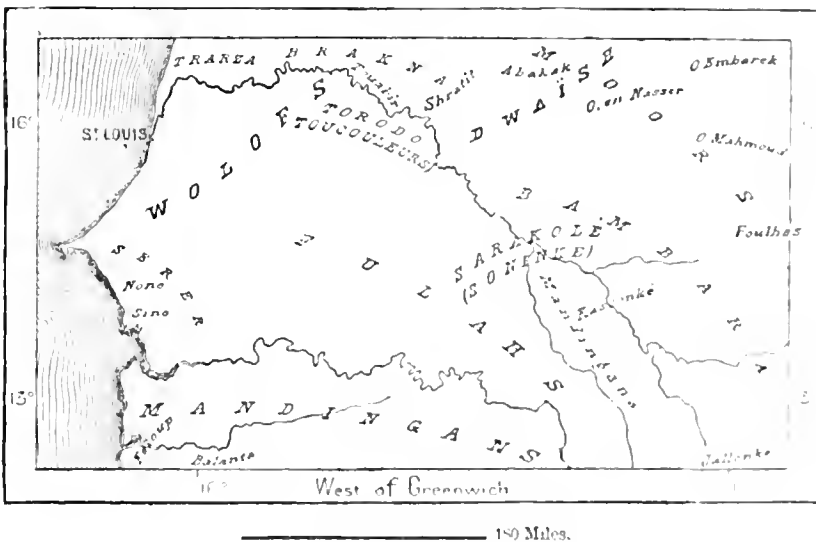
The Wolofs, who are typical Senegalese, occupy a very extensive domain, comprising nearly the whole of the space lying between the Senegal, the Falémé,

and the Gambia. They are the exclusive inhabitants of the Walo, Cayor, Baol, and Jolof districts, the last mentioned, properly the name of a chief branch, being sometimes applied to the whole nation. Saint-Louis and Dakar, the two centres of French authority, both lie in Wolof territory, and in all the military stations throughout Sudan there is sure to be a Wolof colony preserving its national speech and usages. According to Tautain, the term Wolof would appear to mean "Speakers," as if all other peoples were speechless barbarians; Barth, however, proposes perhaps the less probable sense of "Blacks," in opposition to the neighbouring Fulahs, or "Red" people.

Certainly the Wolofs are "blacks of the blacks," their shiny skin having the colour of ebony, and their very lips being black, although of a lighter shade than the rest of the body. They are distinguished from most Negroes of the seaboard

Fig. 55.—CHIEF NATIONS AND TRIBES OF SENEGAMBIA.

Scale 1 : 9,000,000.



by a slighter degree of prognathism, the incisors being very little inclined forward. Generally of tall stature, both sexes have an admirably proportioned bust, but slender lower extremities, undeveloped calves, flat feet, and great toe more detached than among Europeans.

The Wolof, distinct from all other forms of speech current in Africa, is a typical agglutinating language. The roots, nearly all monosyllables ending in consonants, are determined by means of suffixes, and coalesce together while remaining invariable in their different nominal, adjectival, verbal, and adverbial meanings. By these suffixes the meaning of the words is endlessly modified, verbs, for instance, being diversely conjugated in their several reciprocal, emphatic, augmentative, diminutive, accelerative, repetitive, cursative, or habitual forms by a change of the final syllable. A few roots have been borrowed from the Fulah and Mandingan tongues, and some technical terms from the Arabic; but as a

whole Wolof is a very pure and homogeneous form of speech. As the current language of commercial intercourse throughout Senegambia, it has acquired a paramount importance, and numerous Wolof grammars, dictionaries, and vocabularies have appeared in France and Africa since 1825. But no literature, properly so called, has yet been developed. The Wolofs preserve their national songs, legends, and proverbs by memory, and apart from those attending school they have no knowledge of any letters beyond the Arabic characters on their paper spells and amulets.

Most Wolofs call themselves Mussulmans, although in the neighbourhood of the missionary stations some claim the title of Christians. The chief difference is that the former have trinkets enclosing scraps from the Koran, while the latter wear medals and scapularies. All feasts, Mohammedan and Christian alike, are celebrated with equal zeal, and many of the old pagan rites still attract the multitude. Thus at Gorée the capture of a shark and its exhibition in the streets excites a perfect frenzy of delight, all work being stopped for hours together. Most Wolofs believe in a family genius, to whom they make offerings; in many houses the tutelary deity is a lizard, for whom his bowl of milk is scrupulously set apart. The Marabouts, or "Serins" of the early travellers, also enjoy very great authority; all are acquainted with Arabic, and by them the schools are conducted.

Polygamy is sanctioned by usage, and the wife is "chained" to her husband, as is the daughter to her father. She has no personal rights, and at her husband's death belongs to his brother. She must even simulate death, and remained crouched and motionless until the husband's sister comes to resuscitate her, as it were, by attiring her in mourning. Usage still allows the judgment of the dead. Before the burial the neighbours gather to praise or blame the departed, to sing his virtues or bemoan his vices. But on the brink of the graves, whether sprinkled or not with the blood of an ox or of any other victim, nothing but good-will and affection is shown to the dead. In some places the roof of the cabin is removed and placed on the tomb, the new home of the lost friend. For a year after the burial the touching custom also still prevails of sending to some indigent neighbour, or to a slave, the portion of food usually allotted to the deceased when alive. On returning from the grave to his home great care must be taken to make many turnings and to go astray, as it were, in order to deceive the evil spirit, who might else find his way to another house and carry off a fresh victim.

The old kingdom of Cayor, largest of the Wolof states, has been respected by the French. The ruler is elected, but always from a family enjoying the royal prerogative, and the electors, themselves barred from intriguing for the honour, number four only. When appointed, the king receives a vase said to contain the seeds of all the plants growing in Cayor. He is thus constituted lord of the land, and henceforth on him depends the abundance of the crops. Before the interference of the French in the local arrangements, all the Wolof states recognised a supreme head, the Bâr, or "Great Wolof," to whom the secondary kings sent a drum of homage. He was approached on all fours, with bare back and head covered with dust.

The Wolofs are thoroughly devoted to the French cause, and display the greatest courage and heroism whenever called upon to perform any deed of prowess in the service of the whites.

#### THE SERERS.

The Serers, southern neighbours of the Wolofs, belong to the same stock, and in many places form with them half-caste communities, sometimes even adopting their language and usages. Elsewhere they have intermingled with the Mandingoes, to which conquering race belong most of their reigning families. But the proper domain of the pure Serers is still sharply delineated by the waterparting of the Gambia and Salûm, comprising all the basin of the latter river and thence to the Tanna Lagoon at the neck of the Cape Verd peninsula. In this extensive territory of nearly 5,000 square miles, the Serers are subdivided into numerous shifting groups reducible to two main divisions—the None Serers in the north-west, and the Sine Serers (the Barbarians of the early Portuguese writers) occupying all the rest of the country. The latter are by far the most numerous, and their language, which presents many close analogies with Wolof, has been the best studied.

Of all the seaboard Nigritians the Serers are the tallest, men of 6 feet 6 inches being by no means rare. The chest is well developed in proportion to the stature, and their figures might be described as Herculean if the lower corresponded to the upper extremities. Somewhat less black than the Wolofs, they present more Negro features, with broader nostrils, more flattened face, and thicker lips. As amongst their neighbours, wives are purchased of the father, but do not belong to their husband until a form of make-believe abduction is gone through.

Although the influence of Islam has been of late years increased by intercourse with the Wolofs and the conquest of the Salûm basin by a Fula Marabout, the bulk of the people still practise pagan rites. The gods are worshipped at the foot of the trees, and at the new moon the spirits of air and night are conjured with mysterious incantations. The two supreme deities are Takhar, god of justice, and Tiurakh, god of wealth, the former appealed to against the injuries of others, the oppression of the great, the magic arts of the weak, the latter implored for the success of all undertakings, even when iniquitous and disapproved of by the beneficent deity himself. The snake also held a high place in the national pantheon, and was often known to appear in various disguises, even "assuming the uniform of an aged officer of the empire." Formerly he received offerings of living animals, especially cattle and poultry; but zeal having waned since the spread of the new ideas, he has to be satisfied with the remains of the animals consumed at the public feasts. Most of the natives believe in the transmigration of souls, which explains many features in their funeral observances.

#### THE SARAKOLIS, KASSONKE, AND JALLOKES.

The predominant Negro element in the middle Senegal region, formerly known as the "Galam" country, are commonly known by the name of Sarakole. They

call themselves Soninké, which is said to have originally meant "white," but which in the Gambia basin has become synonymous with impious and drunkard. By some they are regarded as totally distinct from their Bambara and Mandingan neighbours, while others affiliate them to the Sonrhais of the middle Niger, with a slight dash of Berber blood, which would account for their relatively fair complexion. But most ethnologists agree with Barth in grouping them with the great Mandingan family. Where interminglings have taken place, their language is more or less affected by Fulah, Bambara, and Mandingan elements, and Tautain

Fig. 56.—WOLOF GIRL, SIXTEEN YEARS OF AGE.



finds that both in its roots and syntax it is fundamentally connected with Mandingan. According to their traditions, they formerly held extensive sway on the banks of the Niger; but in any case they have certainly occupied the Senegal basin long before the arrival of the other Mandingoes and Bambaras.

Scattered in small isolated groups throughout Senegambia, the Sarakolés are found in most compact masses along both banks of the Senegal between Bafulabé and Bakel. Considerably smaller than the Serers and Wolofs, they are still taller than the Fulahs, but of less graceful carriage. The complexion is a dark chestnut,



inclining to red, and according to Tautain the true meaning of Sérékhoulé is "red men." The facial prognathism is very marked, and they are further distinguished by a retreating brow, slightly prominent cheek-bones, short thick nose, receding chin, woolly but not curly hair. Most of the women dress their hair in the form of a helmet, elegantly interwoven with glass trinkets and amber beads visible through a floating gauze veil. Their houses are also kept very clean and taste-

Fig. 57.—SERÉK YOUTH, TWENTY-ONE YEARS OLD.



fully grouped in hamlets disposed round a large central tree with a raised encircling platform, where the villagers assemble to discuss public affairs.

Notwithstanding their mild and essentially peaceful disposition, the Sarakolés have by passive resistance contrived to keep together in a number of petty monarchical or oligarchical states, some isolated, some grouped in confederacies, but all now Mohammedan. Many trade in caravans from village to village, even visiting the coast, in order to see with their own eyes the wonderful things of which they have heard. Few harbour hostile feelings towards the whites, with whom they willingly associate, and under whom they readily accept service by land and water. Thus combining the qualities of settled and nomad populations, and naturally of a

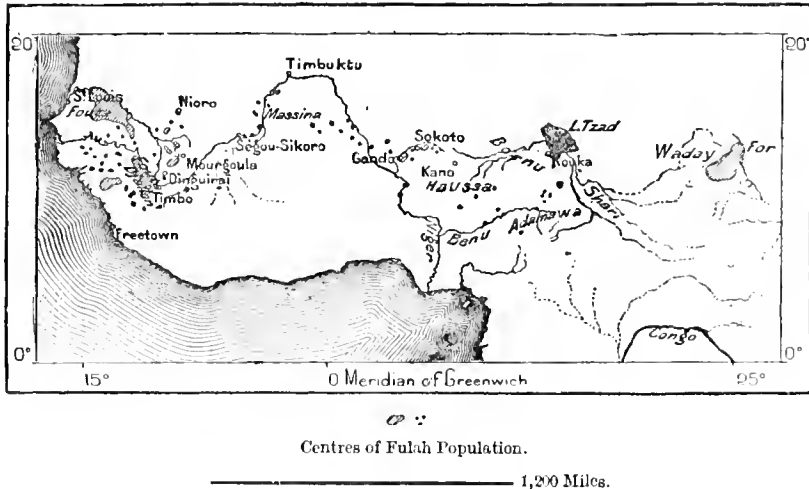
cheerful buoyant temperament, they seem destined to become on the upper what the Wolofs are on the lower Senegal, the French of the colony.

Other somewhat distinct ethnical groups about the headwaters of the Senegal, apparently half-castes, and speaking dialects more or less related to Mandingan, are the Kassonkés, forming federal republics in the Medina district, in Kasso, Kamera, Guidimakha, and Nadiaga. Most of them have a relatively light complexion and pleasant features, with a stealthy, cat-like gait. They are quick but cunning, and of dissipated habits, given to dancing and merrymaking, and keeping up an incessant tam-taming night and day in all their villages. The Kasso women lead the fashion in all matters connected with the toilet.

The Jallonkés, between the Bafing and Niger, formerly occupied the Futa-Jallon highlands, whence they take their name. Of all the Senegambian Negroes

Fig. 58.—DISTRIBUTION OF THE FULAHS IN WEST AFRICA.

Scale 1 : 50,000,000.



they have come least under European influences, and have been described as barbarous and cruel, still clothed in the skins of wild beasts. Towards the north they have come in contact with the Soninkés, elsewhere with the Mandingans and Fulahs, who have dispossessed them of their primeval homes.

#### THE FULAHS.

These Fulahs, a foreign race entirely distinct from the surrounding Negroes, have wedged themselves in between the blacks of the seaboard and those of the Niger. Here they are more numerous and present a more compact national body than in any other part of Sudan, throughout which region they are scattered in more or less powerful communities for a space of about 2,700 miles. They are met as far east as Darfur, while in the west they have penetrated to the Nunez, Pongo, and Mellicory coast streams. Their colonies stretch north and south for 600 miles

between the Senegal and Benue rivers. But however vast be this domain in which they have founded great empires, such as those of Haussa and Massina, their settlements are almost everywhere very scattered, and in many regions lost as it were in the surrounding sea of Negro populations. Even in the district of French Sudan specially known as Fula-dugu, or "Fulah Land," and by many regarded as the cradle of the race, only a few Fulah families are now met. Nevertheless throughout their widespread territory they everywhere maintain a certain national solidarity, recognising themselves as brethren, thanks to the common speech, traditions and usages.

Those who have best preserved their racial purity have a somewhat red or bronzed complexion, with features differing little from the Berber type—oval face, ringlety or even smooth hair, straight nose, delicate and rather thin lips. Many, especially of the women, may be described as really beautiful in the European sense of the term, and the charm of this beauty is heightened by their mild, pleasant expression, graceful carriage, noble bearing, and the good taste displayed in their dress and ornamentation. The shape of the skull resembles that of the fellahin in the Nile delta, and many of the women dress their hair like that of the Egyptian statues. They regard themselves as absolutely distinct from the Negroes, and those met by European travellers in Central Sudan never fail to claim brotherhood or kinship with the white strangers. But the majority, being zealous Mohammedans, prefer a Himyaritic or Arab origin, and the Marabouts trace their genealogical tree back to a common ancestor, Fellah ben Himier, "Son of the Red," that is, of the Himyarite, thus explaining at once their descent and complexion.

From the surrounding Negroes they are distinguished even more by their pastoral pursuits than by their physical features. Less nomad than the Moors, they none the less readily change their abodes, even abandoning their hamlets for the sake of their herds, without any thought of returning. By thus following their zebus they have spread over the whole of West Africa, everywhere displaying a marvellous attachment to and knowledge of the habits of these animals.

Taken as a whole, the race is distinguished by great intelligence, lofty ideas, a poetic tone, and dignity of speech. The tales recited of an evening in the village groups breathe such an elevated spirit as to be simply unintelligible to the neighbouring Negro peoples. Yet the Fulahs have shown their superiority even by taking a lesson from the agricultural blacks, and in some districts they have become completely settled, combining tillage with the national occupation of stock-breeding. They also become skilled craftsmen, and have learnt to extract the metal from the iron ores, smelting and forging it into implements of husbandry, utensils, knives, and weapons. The jewellers handle the precious metals with great taste; the builders erect solid and commodious dwellings; the tanners and workers in leather prepare excellent sheaths and many other articles in that material; lastly, with the native cotton the weavers produce fabrics almost as fine as muslin.

As warriors the Fulahs hold their own against all other African races. In

time of war all able adults march to battle, and in their expeditions they give proof of great strategic skill. Besides the arms common to the Nigrifian peoples, they have iron spears with leather-bound handles, often wrought with great skill. Although they have slaves, employed in the houses and as field-labourers, it redounds to their honour that they have never taken part in the slave trade. Under rare circumstances criminals were sold instead of being put to death, and a

Fig. 59.—FULAH TYPE.



few nomad Fulahs were captured on the confines of their territory; but they were scarcely represented amongst the gangs transported to the New World.

The recent migrations and invasions of the Fulahs are recorded in history; but where were they settled in the early period of Islam? Are they Negroes, who have acquired a fair complexion and regular features by crossings with the Arabs and Berbers? Are they kinsmen of the Nubian Barabras, or of the ancient Egyptians, whom they resemble in so many respects? Have they migrated from the southern slopes of Mauritania in company with those Garamantes who carved

the images of their zebus on the face of the rocks in the wilderness? Or is their origin to be sought beyond the continent, in Malaysia or amongst the gipsies who migrated centuries ago from India? For all these views have been advanced without helping much towards the solution of this curious ethnological problem.

Nor has the Fulah language yet found a definite position amongst the linguistic families of Africa. It has two grammatical genders, not the masculine and feminine, as in most idioms, but the human and non-human; the adjective agrees in assonance with its noun, and euphony plays a great part in verbal and nominal inflection. In some respects the sonorous Fulah tongue resembles the surrounding Negro dialects, while in the use of suffixes betraying the Semitic influences to which it appears to have been long exposed. But its true position must soon be determined by means of the numerous grammatical works, including one by a prince of Sokoto, that have already been composed in this language. Its general features, combined with the national and historic traditions, seem to assign an eastern origin to the Fulahs, who first crossed the continent from east to west, and then, like the Mauritanian Arabs in more recent times, retraced their steps eastwards. From the banks of the Senegal came those Fulahs who, at the beginning of the present century, founded the Haussa and Massina empires in the Niger basin.

Apart from a few tribes, especially those of the Birgo district, the great bulk of the race have long been Mohammedans. Many are even animated by an ardent spirit of proselytism, although their religious zeal has not rendered them intolerant. Their men of letters are quite free from the slavish adherence to the text of the Koran characteristic of the eastern Mussulmans, and when a passage seems unintelligible or contrary to their way of thinking, they freely modify it in accordance with their own religious views. Like other Mohammedans they admit polygamy, but scarcely practise it, a fact due mainly to their respect for woman and to her influence over her husband. "Let a female slave enter a household," say the Wolofs, "and she soon becomes mistress."

Unlike those of the Negroes, the Fulah governments are not despotic, each state generally constituting a theocratic republic, whose almanj, or chief, exercises his temporal and priestly functions with the advice of the elders and notables. The elective element plays an important part in the local administration, and the real rulers are the wealthy families.

#### THE TOUCOULEURS.

Analogous institutions prevail amongst the Toucouleurs of the four riverain provinces of Danga, Futa, Toro, and Dinar, between the Faldé confluence and Lake Paniéful. This collective name, by some scarcely seriously derived from the English "two colours," because the natives are mostly brown or coppery half-caste Negroes, Moors, and Fulahs, took the form of *Tacurores* in the works of the Portuguese writers of the sixteenth century. Hence there can be no doubt of its identity with *Tacrol*, already mentioned by Cadamosto as the old name of the country, and since confused with the *Takrûr* or *Takarir* pilgrims from West Africa to Mecca,

among which are numerous Senegambian hajis. The Toucouleurs are specially distinguished by their Mohammedan fanaticism. Their intelligence, energy, and ambition also render them formidable rivals of their Negro neighbours, and even of the French settlers. Living on the left bank of the main stream over against the Moors who occupy the north side, they have often obstructed the navigation, and had they not been divided amongst themselves the Europeans could never have conquered the Senegal basin. For many years the French columns had great difficulty in penetrating into the Toucouleur territory; but in 1885, after long diplomatic negotiations, the Government was allowed to complete the telegraph system between Gorée on the Atlantic and Bamaku on the Niger by connecting the eastern and western sections across the hitherto hostile district from Saldé to Bakel. In Kaarta, also, north of Bakhoy and Baulé, the way is again barred to the French by the Toucouleur conquerors of that region. But notwithstanding their independent and fanatical spirit, their love of labour and enterprise render them a useful element in the Senegal basin. They emigrate freely in search of fortune, and whole colonies of Toucouleur peasantry have established themselves on the banks of the Gambia.

#### THE EUROPEANS.

In the presence of all these different races, who are still in the same period of historic development and social organisation as the Europe of mediæval times, the modern epoch with its new ideas and advanced institutions is represented by the few whites who are settled at Saint-Louis, Gorée, and Dakar on the coast, and who visit the riverain stations or make exploring journeys into the interior. Yet even this handful of Frenchmen does not thoroughly represent all the organic elements of European society, for it comprises none but traders, soldiers, and officials, with a few artisans amongst the military conscripts. Although the oldest of the French possessions, Senegal has the least claim to its title of "colony." Hither no Europeans have ever come freely to settle down in the country as artisans or labourers, and even in most prosperous years not more than seven hundred or eight hundred men have ever arrived of their own accord. Women are so rare that their presence is looked upon as a proof of heroism. This, of course, is due to the dangerous character of the climate, which, speaking broadly, is fatal to Europeans of weak constitution and to all who do not pay the strictest attention to diet and sanitary precautions. To the numerous local endemics are occasionally added violent epidemics, such as cholera and especially yellow fever, which latter has broken out six times since 1830, usually carrying off over one-half of the French residents in the coast towns.

Although certain partial experiments have succeeded, as, for instance, the construction of the railway from Dakar to Saint-Louis by European navvies, we must still repeat with Béranger-Féraud that "the acclimatisation of the French in Senegal is a chimera." Until some infallible specifics are discovered against miasma and yellow fever, and health resorts established on the Futa-Jallon uplands, Euro-



DOGGULEE R. TYPES — THE INTERPRETER ALPHA S.E.A. AND HIS SISTERS





peans can only be temporary residents in Senegambia. The vital statistics between 1843 and 1847 show that amongst them the mortality is fourfold the birth-rate. Since then matters have not mended, and French society has still to be maintained at Saint-Louis, Dakar, and Rufisque by the constant arrival of fresh recruits. Even the Eurafrians, or French half-castes, have failed to establish themselves as an independent community in the country. After four centuries of occupation this element is very slight, and the statistics carefully collected by scientific medical men clearly show that the offspring of mixed alliances born on the seaboard frequently die young, while the unions of the survivors are mostly childless. Few families have survived to the fourth generation, although M. Corre has shown that in Saint-Louis the proportion of births over deaths in this section of the community was seven to four.

In Senegambia no Creole form of speech has sprung up like those of the Antilles and Louisiana. Wolof is still the most current language on the coast, while in the interior Arabic and Fulah are indispensable for intercourse with the Moors and Fulahs. French, however, is slowly gaining ground, more through the personal influence of the native soldiers and sailors than through the systematic instruction of paid teachers.

#### TRADE AND AGRICULTURE.

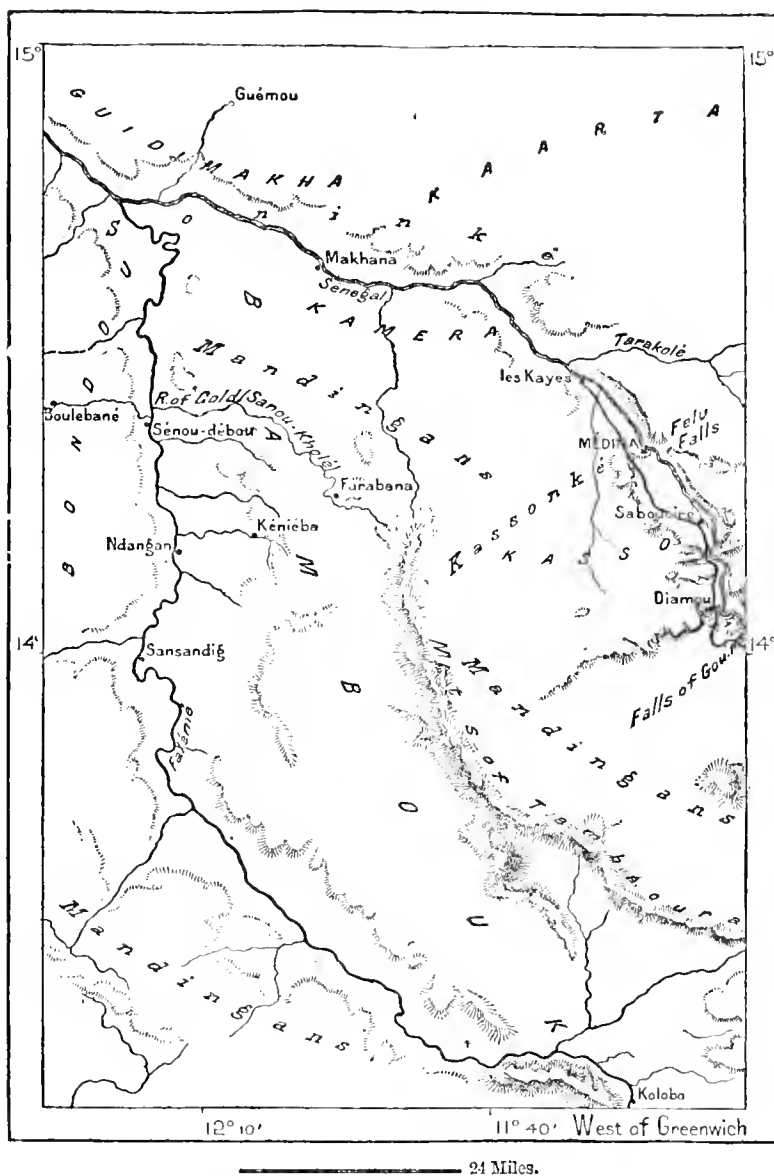
During the last few years the trade of Senegal has acquired considerable expansion. During the seventeenth and eighteenth centuries the traffic of the chartered companies consisted chiefly in procuring Negroes for the West Indian plantations. In 1682 an "Indian piece," that is, a Negro of prime quality, costing only ten livres in Senegal, fetched as much as a hundred crowns in the American colonies, and the yearly exportation averaged one thousand five hundred souls. This traffic did not completely cease as a legalised industry till the Restoration, after which the only staple of trade was gum, derived from various species of acacia, adansonia, seyal, and other plants growing in the territory of the Moors on the north side of the river. The forests of gummiferous trees, some of which cover several hundred square miles, are now in the exclusive power of the Traza, Brakna and Dwaish tribes, or rather of the tribal chiefs, who employ their captives on the plantations. The produce, mostly bought up by Bordeaux houses, is paid for partly in cash, partly in kind—millet, rice, biscuits, tobacco, rifles, ammunition, textiles, and especially "guineas," that is, pieces of cotton 50 feet long, which were long admitted as the unit of value in the barter trade throughout Senegal. In good years the yield of gum exceeds six million pounds, and might be greatly increased by planting acacias in the Futa district south of the river, and by working the forests more systematically.

For some years the chief staple of export has been the ground-nut (*Arachis hypogæa*), the cultivation of which has gradually spread along the middle Senegal, in Cayor and Salûm, since it began to be exported in 1844. From the agricultural point of view the ground-nut presents the great advantage of improving instead of

exhausting the soil, while its foliage offers the best fodder for all herbivorous animals. Other articles of export are eighteen varieties of millet, rice, maize, beref (oleaginous melon-seeds), wax, cotton, caoutchouc, skins, ivory, ostrich feathers, and vegetable butter, all, however, in very small quantities.

Fig. 60.—MINERAL REGIONS OF BAMBUK.

Scale 1 : 1,400,000.



The land is nearly everywhere in the hands of the natives, who cultivate it with far more care and intelligence than is generally supposed by superficial observers. "No husbandman," says a local proverb, "finds the day too long or his *lugan* ('plot') too small." Many concessions have been made to Europeans,

but being too extensive they have been but partially cultivated, and all such lands allowed to lie fallow for a certain period revert to the original owners. A great difficulty is found in keeping up the stock of animals. The horse, ass, camel, and pack-ox of the Sahara soon yield to the climate, and although the mule is hardier, he is also very costly. The sheep thrives, changing, however, its wool for a silky coat; and in the interior there are several breeds of domestic animals, such as the Khassonké "scrub oxen," which have become perfectly acclimatised, and which in some places even run half wild in the forests.

#### MINERAL RESOURCES.

Senegal abounds in minerals, such as gold, silver, mercury, copper, and iron. From time immemorial the natives of Bondu and Bambûk have washed the quartzose sands of the Falémé and its affluents for gold, and the Bambûk mines themselves were perhaps worked by the Portuguese so early as the beginning of the fifteenth century. According to the tradition they were all massacred by the natives, and there are certainly indications that in early times immigrants from Iberia penetrated into these regions. At the beginning of the eighteenth century André Brié erected the two forts of St. Joseph on the Senegal and St. Peter on the Falémé, and sent Compagnon in quest of the gold mines. This traveller traversed the whole of the Bambûk mineral district, ascended the valley of the Sinu-Kholé, or "River of Gold," to the Tamboura Mountains, and brought back some very rich specimens of auriferous clays. Since then the country has been frequently visited, but no direct attempts were made by the French Government to work the mines till 1858. Even these experiments, which yielded somewhat more than £4,000, were brought to an end by the extreme insalubrity of the climate, and the more recent efforts of private companies have met with no better success, leaving the working of the mines and washing of the sands entirely in the hands of the natives.

The mineral deposits of the Buré district, on one of the head streams of the Bakhoy, appear to be more productive than those of the Bambûk, yielding to the natives a yearly profit of £8,000. But iron is probably the metal destined to become the chief resource of the Upper Senegal, where the ores cover vast tracts and yield an average proportion of from one-half to two-thirds of pure metal. It is already smelted in furnaces of primitive structure, and in many places the natives also utilise the masses of meteoric iron.

The Senegalese smiths manufacture iron daggers, spears, and agricultural implements. The jewellers display considerable skill in the production of delicate filigree work, and the native weavers supply considerable quantities of cotton fabrics for the local consumption. But with the exception of a few fancy articles, no manufactured goods are prepared for the foreign market.

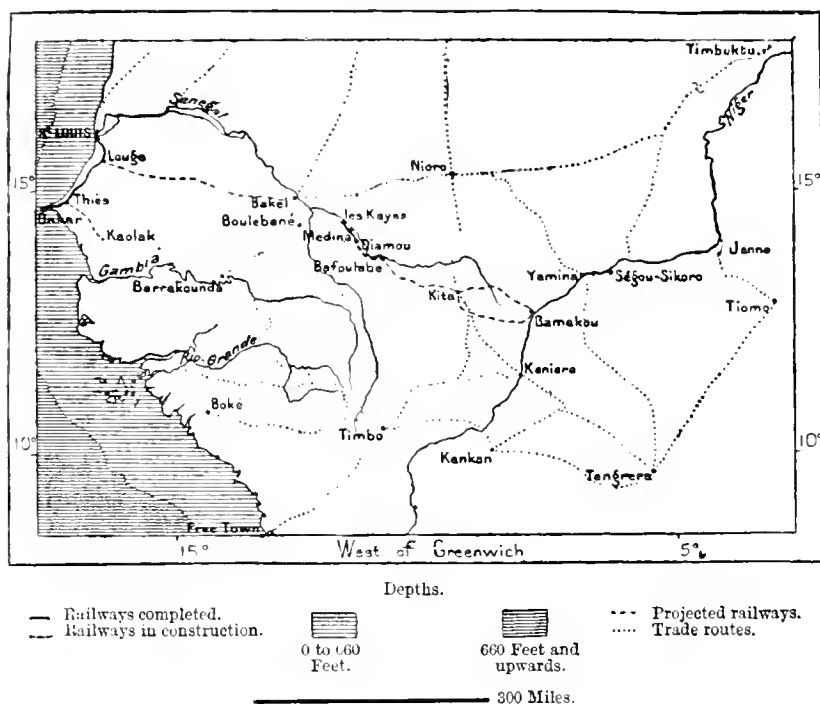
#### SOCIAL AND POLITICAL STATE.

Domestic slavery is a universal institution, the so-called "house captives" being considered as secondary members of the family, and treated in every respect like

their associates. Those employed as artisans, weavers, potters, carpenters, builders, and the like, also for the most part enjoy a considerable share of practical freedom. They enjoy the fruits of their industry, may themselves possess slaves, and occasionally rise to important positions in the state. The agricultural labourers fare much worse, and the tribes that own the fewest slaves, as, for instance, the Toucouleurs, also display the greatest energy, contributing most to the social transformation of Senegambia. In the territory directly administered by France slavery has been abolished since 1848, and according to the law all captives setting

Fig. 61.—TRADE ROUTES AND PROJECTED RAILWAYS IN SENEGAL.

Scale 1 : 16,000,000.



foot on this territory become *ipso facto* free men, although colonial usage connives at the frequent violation of this right.

Since about 1880 this political domain has been greatly enlarged. Half a century ago it was scarcely perceptible on the maps, and the establishment of a colonial state worthy of the name was not taken seriously in hand till comparatively recent times. M. Faidherbe, founder of the French power on the Upper Senegal, began his operations in 1854, by his personal influence and force of arms gradually establishing peace on a solid footing, converting the independent riverain chiefs into vassals, and abolishing all artificial obstructions to free trade in the interior. The fort of Medina, erected on the Senegal where it ceases to be navigable in the dry season, served as the starting-point of a series of expeditions to the upper valleys, and when a formidable Mohammedan army was shattered under the

walls of this citadel, defended only by about a hundred and fifty men, the conquest of the country was secured.

The consolidation of their military power in the upper fluvial basin enabled the French columns to push more boldly into the interior, and in 1883 they seized and constructed a fort at Bamaku, on the Niger. Henceforth the Upper Joliba became connected commercially with the sea, and Timbuktu since its annexation in 1894 also looks to Saint-Louis as its natural outport. During the first fervour of enthusiasm created by the occupation of a station on the Niger, hopes were entertained that Senegal and Algeria might soon be linked together by a grand highway, forerunner of a future trans-Saharan railway. These hopes have not been realised; all attempts made from the Algerian side have ended in disaster, and the Tuaregs with their allies still block the way. Thus the extreme points occupied by the French on this line—Golea, south of Algeria, and Kulikoro, on the Niger—are still separated by a distance of 1,480 miles as the bird flies; that is, far more than half of the whole route. Even the space never yet traversed or surveyed by the most advanced explorers between Twat and Timbuktu exceeds 780 miles, a distance equal to that between Paris and Warsaw.

Nevertheless, the Senegal artery is the most frequented waterway in West Africa. Describing a vast semicircle round the Gambia, Casamanza, and other streams flowing southward, it forms the western branch of the great system of running waters which, through the Niger, extends to the Bight of Benin, enclosing a well-defined region some 800,000 square miles in extent. Hence the political importance of the line of the Senegal is very considerable, but it lacks breadth, and would be liable to be broken through at many points were it not guarded with extreme vigilance. European colonisation being also impossible, political cohesion can be secured only by the good-will of the natives, by satisfying their interests, and gradually developing a sentiment of national solidarity amongst them. But this ideal is still far from being realised, and were France not to come to the aid of the colonial Government with men and subsidies, the situation would rapidly become perilous.

#### ROUTES AND RAILWAYS.

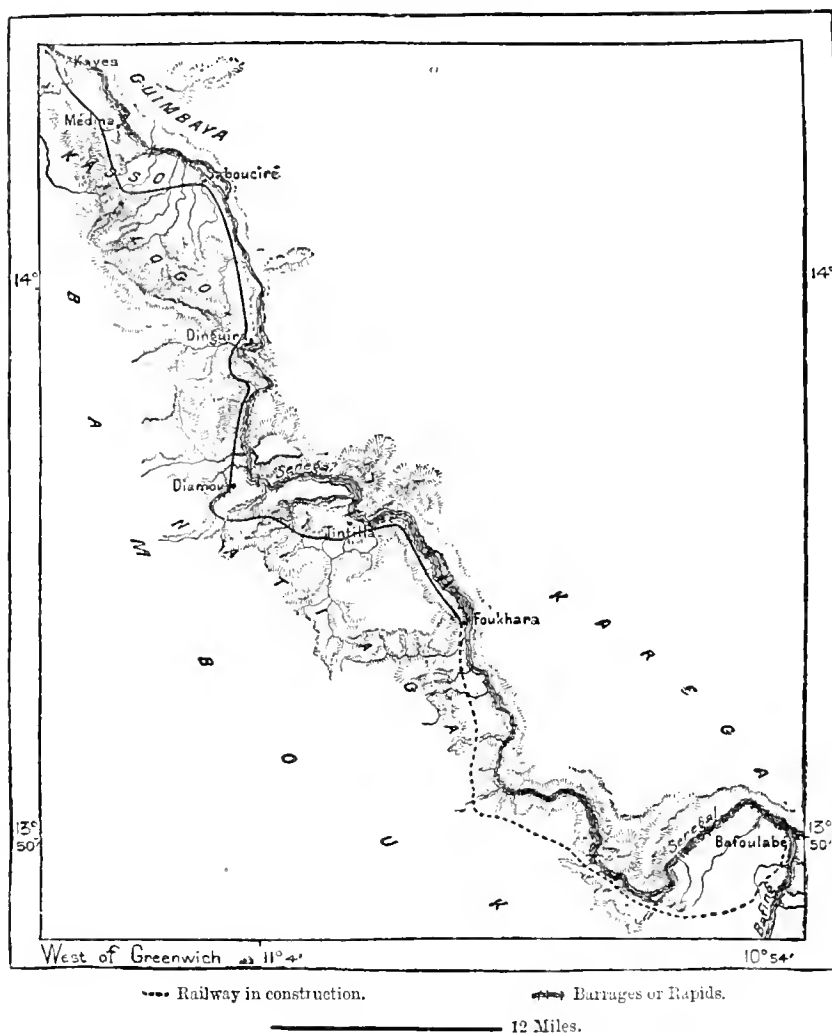
The most urgent want is a rapid means of communication between the Niger and the sea. Till recently no route existed except the Senegal itself, which is interrupted for a great part of the year above Podor. But the fluvial port of Saint-Louis is now at least connected with the maritime port of Dakar by a railway 160 miles long. This forms an admirable basis for a network of lines penetrating towards the Sudan; but, hitherto, summary surveys alone have been made with a view to the construction of a first line over the Senegal and Gambia waterparting eastwards across Futa. This line, some 300 miles in length, would shorten by one-third the distance by water, while increasing by 120 miles the breadth of the colonial territory. Terminating for the present at Bakel, which, so recently as 1886 was attacked by a force of Mussulman rebels, it would add greatly to the security

of this territory, and also form an important section of the grand trunk line destined one day to connect the Niger and Timbuktu with the best port on the West African seaboard.

An excess of zeal somewhat difficult to explain has inspired the construction of a railway starting from the village of Kayes, on the left bank of the Upper Senegal,

Fig. 62.—THE BAFOULABÉ RAILWAY.

Scale 1 : 660,000.



7 miles below Medina, and intended to run for 310 miles eastward to the Niger. The works began in 1881 and were continued for three seasons; but the small results compared with the heavy outlay, the great mortality of the Italian and Moroccan navvies, and the conviction that the project had been badly conceived, brought the enterprise to a close after a first section, 38 miles long, had been completed to a point beyond Diamu. The line has been surveyed and partly cleared

as far as Bafulabé, at the Bafing-Bakhoy confluence, and at least two carriage roads have been opened between the stations on the Upper Senegal and Bamaku on the Niger, one running north through Badumbé, Goniokori, Kita, and Dio, the other south by Medina and Niagassola. By the Kita route are conveyed from Badumbé to Bamaku all the pieces of the gunboats which at present navigate the Niger, and which now ply regularly between Bamaku and Kabara, the riverine port of Timbuktu. They serve not only to develop the trade of the country, but also to maintain the communications between the military stations on the Upper Niger, and enhance in the eyes of the natives the prestige of the conquerors.

At present the Niger garrisons are in regular communication with Saint-Louis by a combined service of steamers, locomotives, carriages, and runners. In the dry season the journey lasts thirty-two days, in the wet ten days less, and the telegraph system is complete all along the lines, so that the Upper Niger is now in direct communication with France through the two cables connecting Saint-Louis and Dakar with the oceanic lines at Teneriffe and San-Thomé.

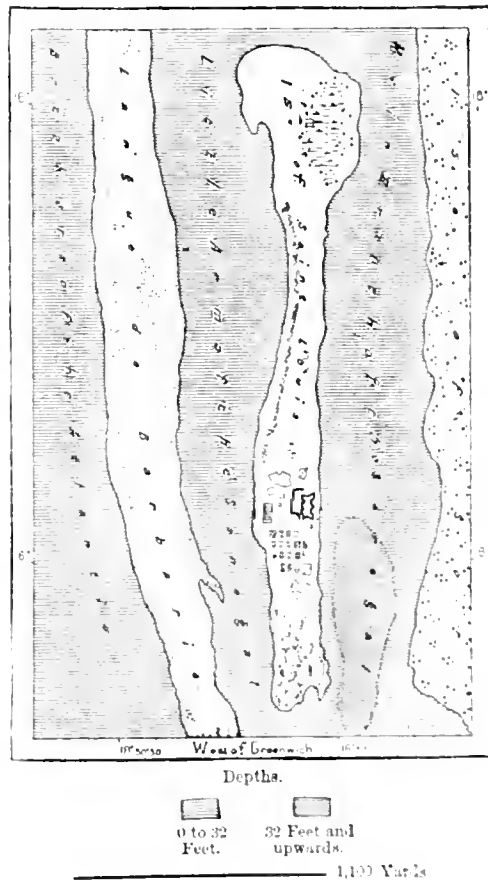
#### TOPOGRAPHY.

The French Senegambian possessions contain but one town worthy of the name, *Saint-Louis*, the capital, founded about the middle of the seventeenth century on or near the site of the older factory of *Bokko* or *Bocos*, a term derived from the Portuguese *Boca*. In population Saint-Louis is the most important coast-town for a space of 2,400 miles, from Rbat-Sla in Morocco to Freetown in Sierra-Leone. It may seem strange that one of the largest towns in Africa should have sprung up on such an unfavourable site for maritime trade, above a dangerous and constantly shifting bar. But Saint-Louis has the advantage of lying near the mouth of a great navigable river, and was founded at a time when vessels trading on this coast drew much less water than at present.

Saint-Louis, or *Ndar*, as the Wolofs call it, occupies most of the island, considerably over a mile long, which is encircled by the two arms of the river.

Fig. 63.—SAINT-LOUIS IN 1700.

Scale 1 : 30,000.



In the *Crétien* ("Christian") quarter the streets, all disposed at right angles, are clean and well built, presenting a marked contrast to the conic-shaped hovels of the natives grouped together at both extremities of the island. Towards the centre is the Government palace, at the head of a bridge of boats 720 yards long, which here crosses the main branch of the Senegal, and connects the town with the insular suburbs of *Sor* and *Bouëtrille*, and with the railway station. On the opposite side are three other bridges over 100 yards long, communicating with the

Negro quarters of *Guet-Ndar*, *Ndar-tout*, and *Gokhoum-laye*, on the tongue of sands exposed to the waves of the Atlantic.

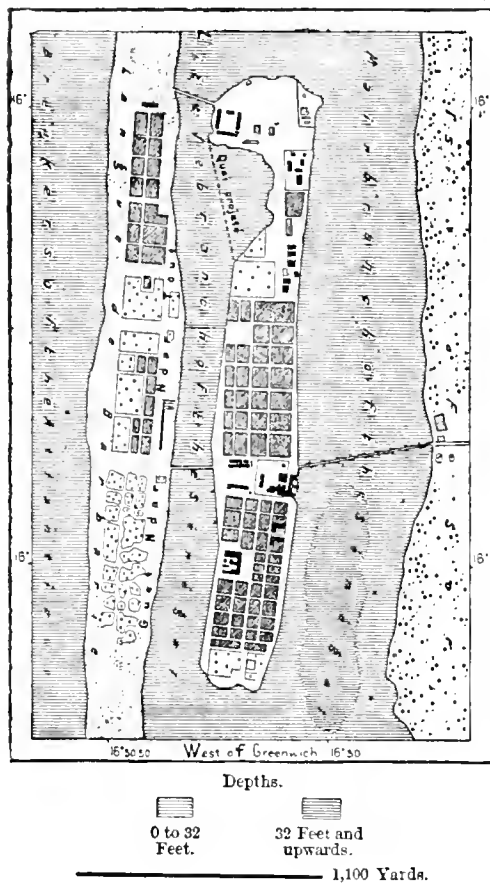
The capital is now supplied with a tolerably good potable water by means of an aqueduct 15 miles long, which supplies the *Sor* reservoir with over 75,000 cubic feet from the *Khassak* lagoon. Various sanitary arrangements have also tended to improve the climate, and it is now proposed, if not to give the town a port, at least to construct a landing-stage on the ocean, so as to avoid the dangerous shifting bar. A line of batteries and small forts on the land side affords complete protection from the attacks of the *Moors*, *Wolofs*, or other natives.

In 1445, that is, two years after the discovery of the *Arguin Bank* by Nuno Tristam, the Portuguese erected a fortified factory on the chief island of the archipelago, and established commercial relations with *Adrar*. This fort passed successively into the hands of the Spaniards, Dutch, and English, and after a warm contest was finally occupied by the French in 1678. But

after being for some time the centre of a flourishing trade it was abandoned, and nothing now remains of the citadel except its foundations half buried in the sands, and surrounded by a little fishing village. The place is inaccessible to large vessels, and although the tides rise six or seven feet on this coast, the tortuous channels connecting the deep *Levrier Bay* with the *Arguin Straits* have in some places little more than ten feet at low water. In front of the archipelago stretches the vast *Arguin Bank*, with its reefs, breakers, shallows, and alternately submerged and exposed sands, occupying altogether an extent of nearly 3,500 square miles.

Fig. 64.—SAINT-LOUIS IN 1880.

Scale 1:30,000.

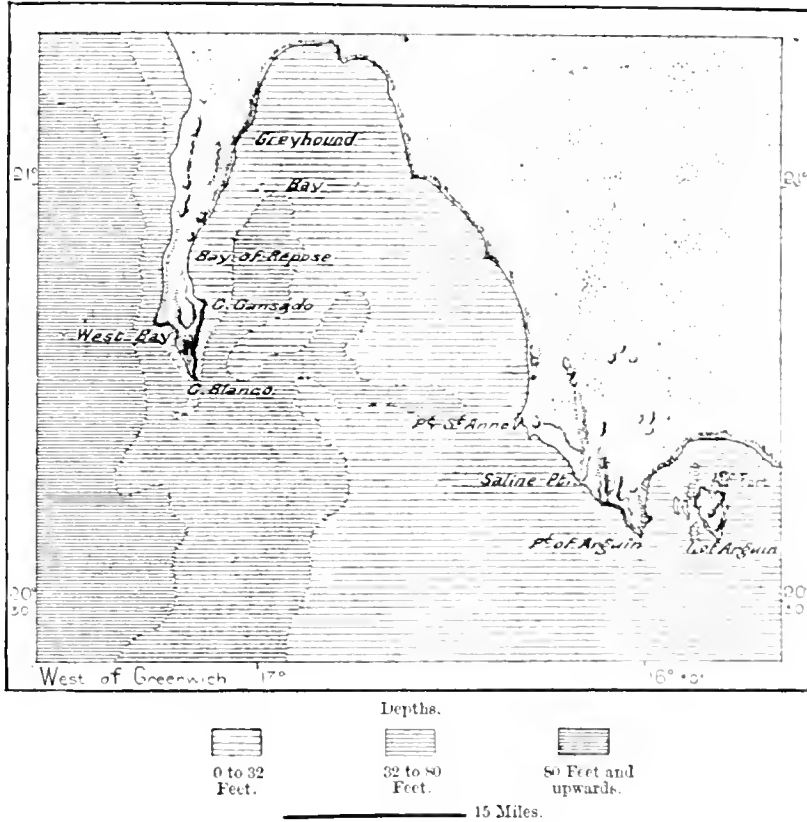




The Arguin Bank terminates at Cape Mirik, about 100 miles south-east of Cape Blanco, near which a breach in the dunes indicates the approach to the dangerous roadstead of *Portendik*, the old *Port of Addi*, which enjoyed a certain importance till 1857, the English, when restoring Senegal to France, having reserved the right of trading in these waters. But this right having been relinquished in exchange for the station of Albreda, at the mouth of the Gambia, Portendik has

Fig. 65.—GULF AND ISLAND OF ARGUIN.

Scale 1 : 1,000,000.



lost all commercial value, and Saint-Louis remains the only outpost for the whole seaboard from Cape Blanco to the mouth of the Senegal.

But the capital depends itself on its maritime port of *Gorée-Dakar*, which has the advantage of lying in deep water under the shelter of Cape Verd, and which is now connected with Saint-Louis by the three fortified stations of *Lompul*, *Mboro*, and *Mbijen*. By the Convention of 1861 the whole coast was declared French territory; next year a second route was opened farther inland, and in 1885 the railway was completed which henceforth connects Saint-Louis with its natural port on the Gulf of Gorée. In the intervening fertile region of Cayor lie several large centres of population, such as *Mpal*, surrounded by plantations of ground-nuts, *Luga* farther south, and *Mdand*, the old capital of the kingdom of Cayor.

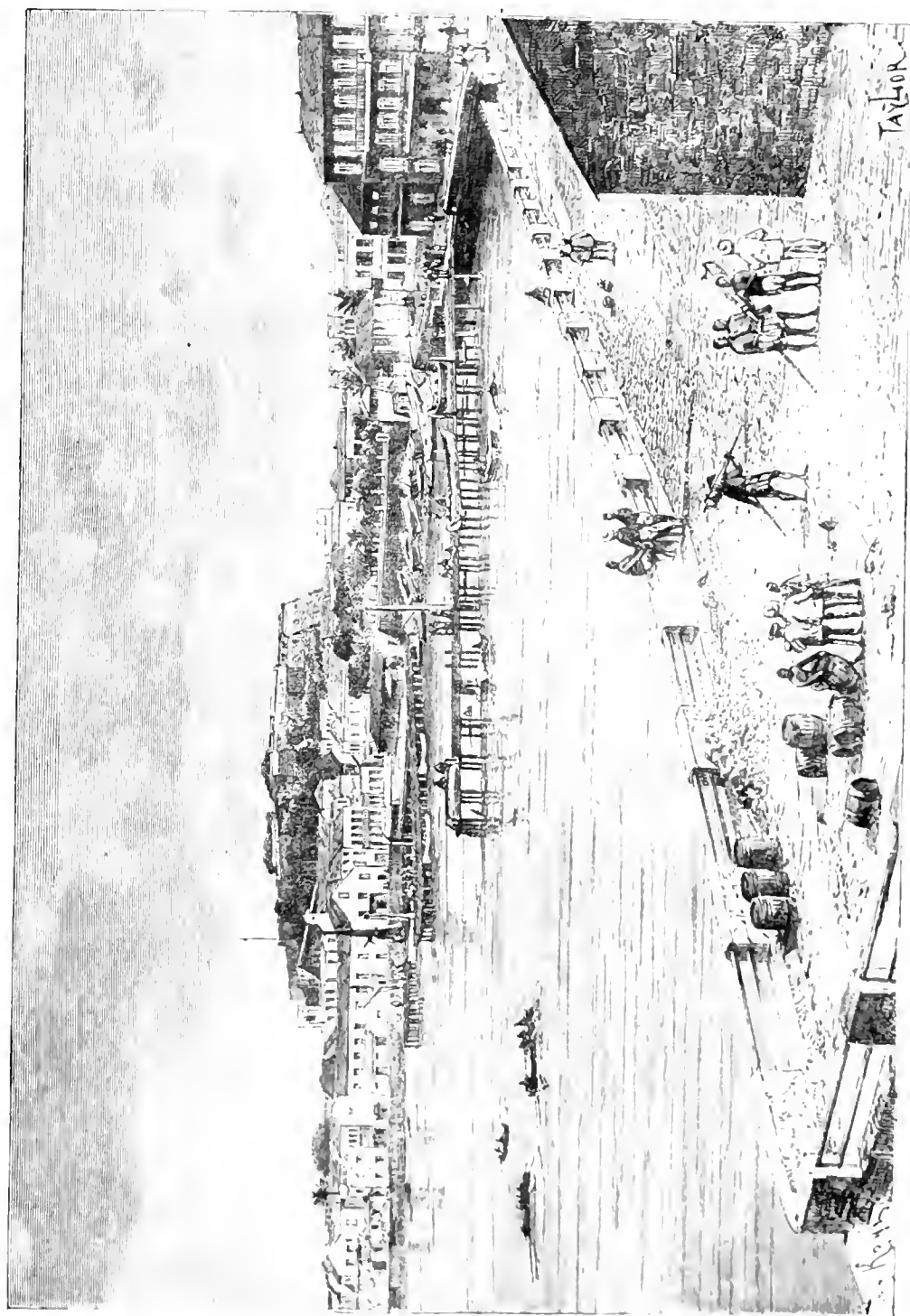
*Gorée*, the first European factory on this coast, appears to have been originally occupied by the Dutch, who gave it the name of Goeree, from the island at the southern entrance of the Harlingvliet. From the Dutch it passed to the French in 1677, and after having been twice seized by the English, it was finally restored to France in 1814. Lying about  $1\frac{1}{2}$  mile from Dakar, the nearest point on the mainland, the islet of Gorée is less than 1,000 yards long, with an area of scarcely 90 acres. It forms a basalt rock 120 feet high on its south side, enclosing an excellent roadstead from 30 to 60 or 70 feet deep, well sheltered during the dry season, but at other times exposed to the surf.

Owing to this drawback and to its inconvenient insular position, Gorée has, in recent times, been partially abandoned for the neighbouring town of *Dakar*, which has the twofold advantage of a port completely sheltered throughout the year, and of a position close to Cape Verd, the westernmost point of the African continent. Here have consequently been erected the Government buildings, the barracks, and head offices of the trading companies; here is the terminus of the Saint-Louis railway, as well as of the Atlantic cable, and hither the population continues to migrate from Gorée. A first-class lighthouse stands on one of the crests of Cape Verd, and other improvements have been undertaken; but much remains to be done, especially in completing the harbour works, before Dakar can hope to replace Saint-Louis as the capital of the French Senegambian possessions.

Since Gorée has ceased to monopolise the local trade, the shipping has increased twofold. Men-of-war and the Transatlantic steamers ride in deep and smooth water at Dakar, while in fair weather small craft are able to visit the neighbouring port of *Rufisque*, the *Rio Freseo* of the early Portuguese mariners, and the *Tangue-teth* of the Wolofs. In several respects this rising town, larger than Gorée and Dakar combined, is badly situated on an exposed low-lying coast, where the sands accumulate in shifting dunes and the waters spread out in stagnant meres. Still it has the advantage of lying at the point where the railway from Dakar leaves the seaboard to penetrate inland towards Saint-Louis. Here also converge the routes from Cayor, Baol, and the Serer country, and here is the chief market for ground-nuts and undressed hides. Unfortunately both Rufisque and Dakar are extremely unhealthy places, exposed to dangerous miasmas and endemic marsh fevers of a virulent type. In this respect Gorée enjoys a decided advantage over its continental rivals, for which it has become a health resort much frequented during the winter season.

Farther south follow the little ports of *Portudal*, *Nianing*, *Joal*, former capital of the Barbaquins, and in the same district *Saint Joseph of Ngasobil*, headquarters of the Catholic missions in Senegambia. *Fatik*, residence of the *bür*, or "King" of Sine, lies on the river of like name, a tributary of the Salüm; and in this basin the chief factories are the French fortified station of *Kaolak* and *Fündiün*, opposite the Sine confluence.

Along the lower reaches of the Senegal the only noteworthy places are *Warkhor*, capital of the Wolof state; *Richard Toll* ("Richard's Garden"), a fishing village at



GOREE—LANDING STAGE AND FORT.



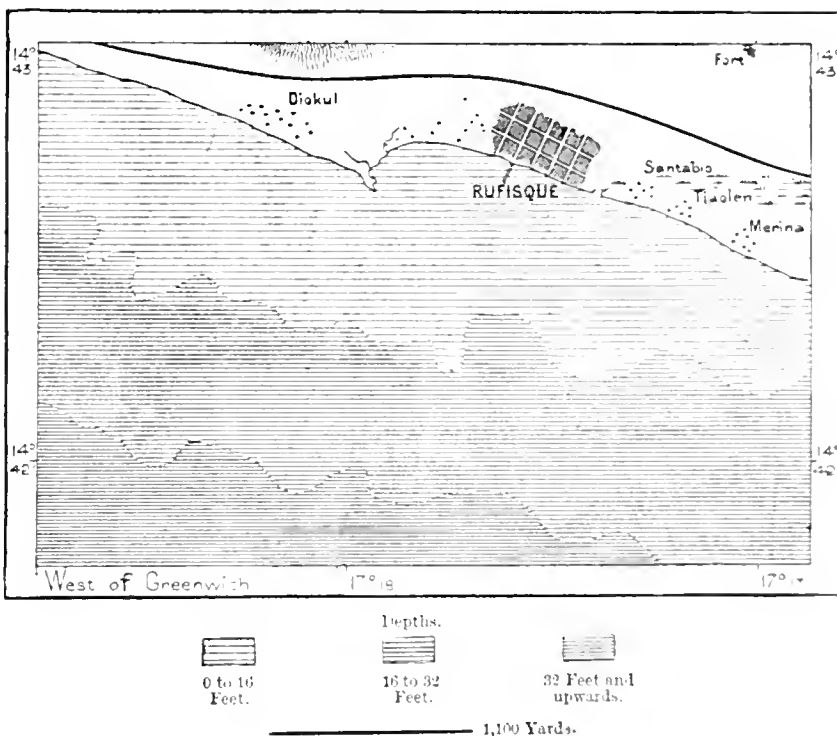
the mouth of the Paniéful emissary, and the *Dugana* station, founded in 1821 nearly opposite the Lake Cayor outlets.

In the middle Senegal region the chief trading places are *Aéré*, on the branch of the Senegal skirting the south side of Morfil Island; *Saldé*, on the main branch, and *Matam*, above another bifurcation of the river.

*Bakel*, above the Toucouleur country, is the natural port of the Upper Senegal, for here converge the trade routes from Guidimakha and Kaarta in the east, from Bambûk in the south-east, and from Bondu in the south. The fort, erected in 1820, and completed by three towers on the adjacent heights, is the strongest citadel and the bulwark of French power in the Upper Senegal regions. It is also the centre

Fig. 66.—RUFISQUE.

Scale 1 : 35,000.



of a considerable local and export traffic, and it lies almost exactly on the ethnological parting line between the Berber and Negro populations.

South of Bakel, the former Fulah kingdom of *Bondu*, occupying the watershed between the Senegal and Gambia basins, is now administered by the French. Here passes the chief trade route followed by Rubault, Mungo Park, Gray, Dochart, Raffanel, and other explorers. *Bulbani*, capital of the kingdom, lies on a little affluent of the Falémé, on a plain encircled by rocky hills, not far from the ruins of an earlier capital.

On the lower Falémé the chief military station is *Sénu-débu*, south of which lies *Kenieba*, which for a time enjoyed some celebrity as the centre of the Bambûk

mines. But "the gold hid itself," as the Negroes say, and after the withdrawal of the garrison Keniéba fell into decay. On a hill a little farther to the east stands the fortified town of *Farabana*, formerly noteworthy as the capital of an independent republic, where the runaway slaves from all the surrounding districts found refuge. Farabana still holds the first rank among the petty states of Bambûk, all of which are now controlled by France.

*Kayes*, on the left bank of the Senegal, at the head of the steam navigation during the floods, has recently acquired some importance as the western terminus of the railway; but its warehouses and dépôts have been gradually transferred to the more healthy station of *Dianm*, 33 miles higher up and on the same side of the river. But the central military station still remains at *Medina* (the "City,") 7 miles from Kayes below the Félû Falls, and memorable for the siege of ninety-five days sustained in 1857 by the French garrison, followed by the final dispersion of the forces of the prophet Al Hâji Omar. This victory secured the definite possession of the Upper Senegal, and in 1878 the capture of the fortified village of *Sabuciré*, 4 miles above the Félû Falls, opened the route to the Niger.

The northern section of the Toucouleur empire, which thus became dismembered, comprises the *Kaarta* country formerly dependent on the kingdom of Kasso. The Kassonkés and the Diavaras, descendants of the original Soninké rulers of the land, are the most numerous ethnical element in Kaarta. Next in importance are various castes of the Bambaras, subsequently the dominant nation, and the Toucouleurs, former masters of the country, although less numerous than the other populations. But the capture of Jeune, in 1893, was followed by the complete submission of the Toucouleurs to the French rule.

Diambokho, the province of Kaarta lying nearest to Medina, has for its chief town the stronghold of *Kuniakari*, which was formerly the capital of the Kassonkés, and which is said still to contain five thousand inhabitants. It occupies a good commercial and strategical position at the confluence of several wadies to the west of *Diala*, the chief place in the province of Dialafara. In Kaarta proper *Koghé* and *Niogomera*, on the verge of the desert, have ceased to be royal residences, and are now eclipsed by *Nioro* (*Rhab*), which is frequented by the caravans from the Upper Niger, which here procure their supplies of salt from Tishit. The tablets of this indispensable article here form the recognised currency, four representing the value of an adult man. *Jarra*, north-east of Nioro, is no longer the "Great City," nor the "capital of the Moorish kingdom of Ludamar" (Ulad-Mbarek,) as at the time of Mungo Park's journey. South-east of it, but still in the Senegal basin, lies the important town of *Dianghirté*, occupied at the time of Mage's visit by the Toucouleur conquerors who had expelled the old Bambara residents.

Before the reduction of the Toucouleurs all the Bakhoy basin above Medina was regarded as a part of the kingdom of Segu; but in reality it comprised a large number of Bambara and Malinké petty states and confederacies, which the Toucouleurs had wasted with fire and sword. Although they had established themselves only in a few strongholds, such as Jeune and Kolodugu, they succeeded in reducing this fertile region to a desert, exterminating nine-tenths of the whole



KAYES RAILWAY STATION.



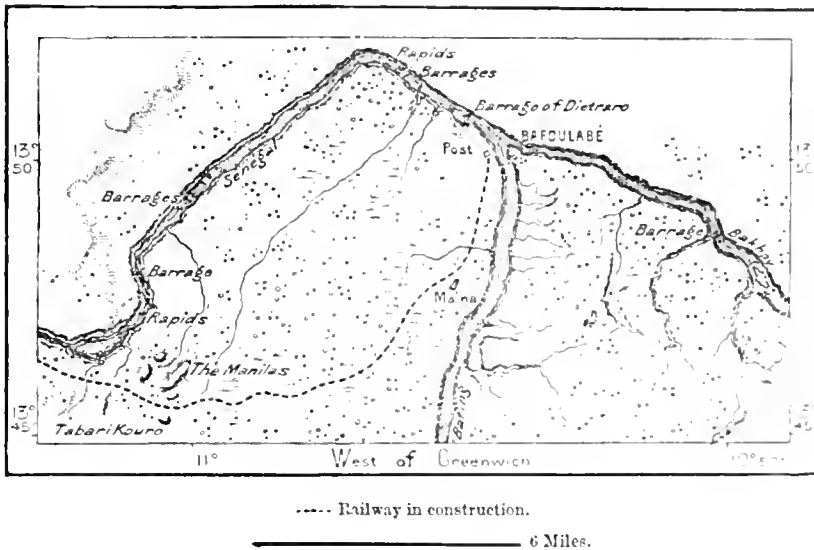


population. The centre of their power was *Murgula*, capital of Birgo, the capture of which place cost the French a large number of men.

*Bafulabé*, last station on the Senegal proper, and first in French Sudan, stands at an altitude of 450 feet over against the Bafing-Bakhoy confluence, where it was founded in 1879 to support the military operations about to be undertaken in the direction of the Niger. It has already become a commercial centre, round which have sprung up seven flourishing villages, with gardens and banana plantations. In 1881 the station of *Badumé* was established on the Bakhoy, some 60 miles above Bafulabé, and the fortress of *Kita* was erected in the Fula-dugu country, midway between Bafulabé and the Niger. In 1883 the Niger itself was reached, and the erection begun of the fort of *Bamaku*, followed in 1884 and 1885 by two new fortified stations between Kita and Bamaku, *Kandu* on the northern and *Niagassola*

Fig. 67.—BAFULABÉ.

Scale 1 : 250,000.



on the southern route. Thus there is nowhere a gap of more than 70 miles between the French garrisons in this region, where the commercial and strategical centre is the post of *Makudiambugudi*, encircled by fourteen Bambara villages which take the collective name of *Kita*. This station lies at the converging point of the main routes, at the entrance of a gorge commanded on the west by a mass of reddish sandstone with steep escarpments over 2,000 feet above sea-level and 850 above the surrounding plain. East of Kita are seen the ruins of *Bangassi*, the old capital of Fula-dugu, visited by Mungo Park.

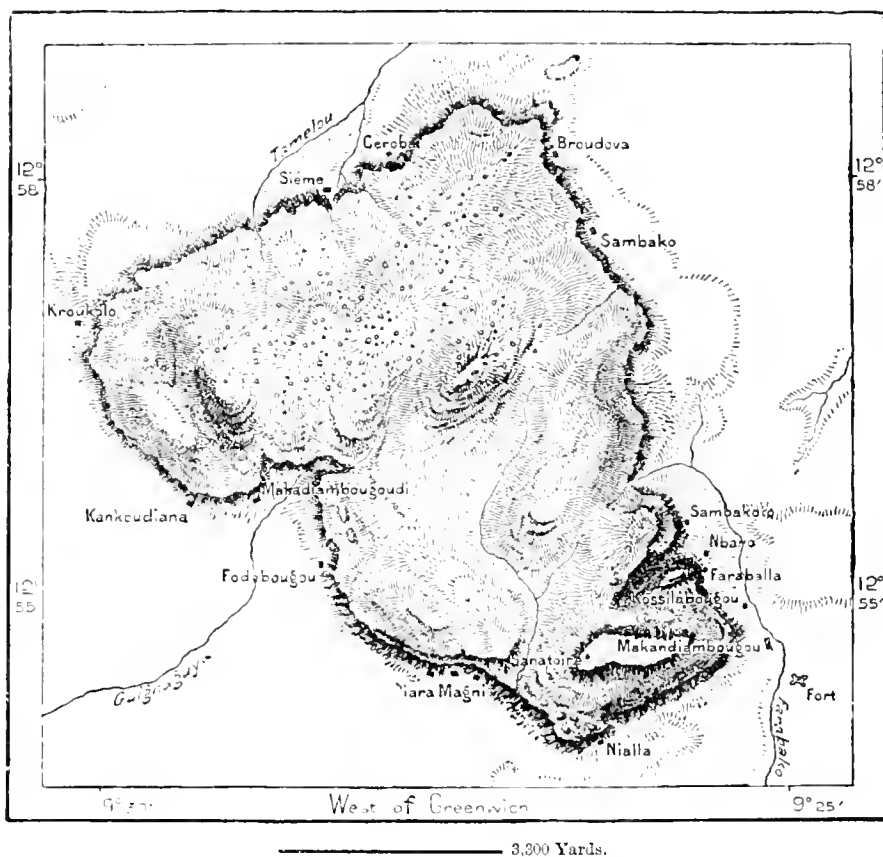
Since the defeat and capture of the Fulah Chief, Samory, by Captain Gourand, in September, 1898, the Bafing basin, south-east of Bambûk, has ceased to be one of the least-known regions in Senegambia. The native reports were found to be greatly exaggerated, especially regarding the strategical importance of *Dinguiray*, which Prince Omar Al Hajî was said to have rendered impregnable to the attacks

of all the surrounding populations. In the same country of the Jallonkés are the two large towns of *Tamba* and *Gonfadé*.

Much better known is the region about the sources of the Bafing, which since the time of Mollien has been visited by Hecquard, Lambert, De Sanderval, Gouldsbury, Bayol, Ansaldi, and others, and which must soon become one of the most frequented districts in Senegambia, thanks to its excellent climate, picturesque scenery, varied produce, and the interest presented by the inhabitants and their institutions. The communities are grouped in the upper river valleys, which

Fig. 68.—ROCK OF KITA.

Scale 1 : 100,000.

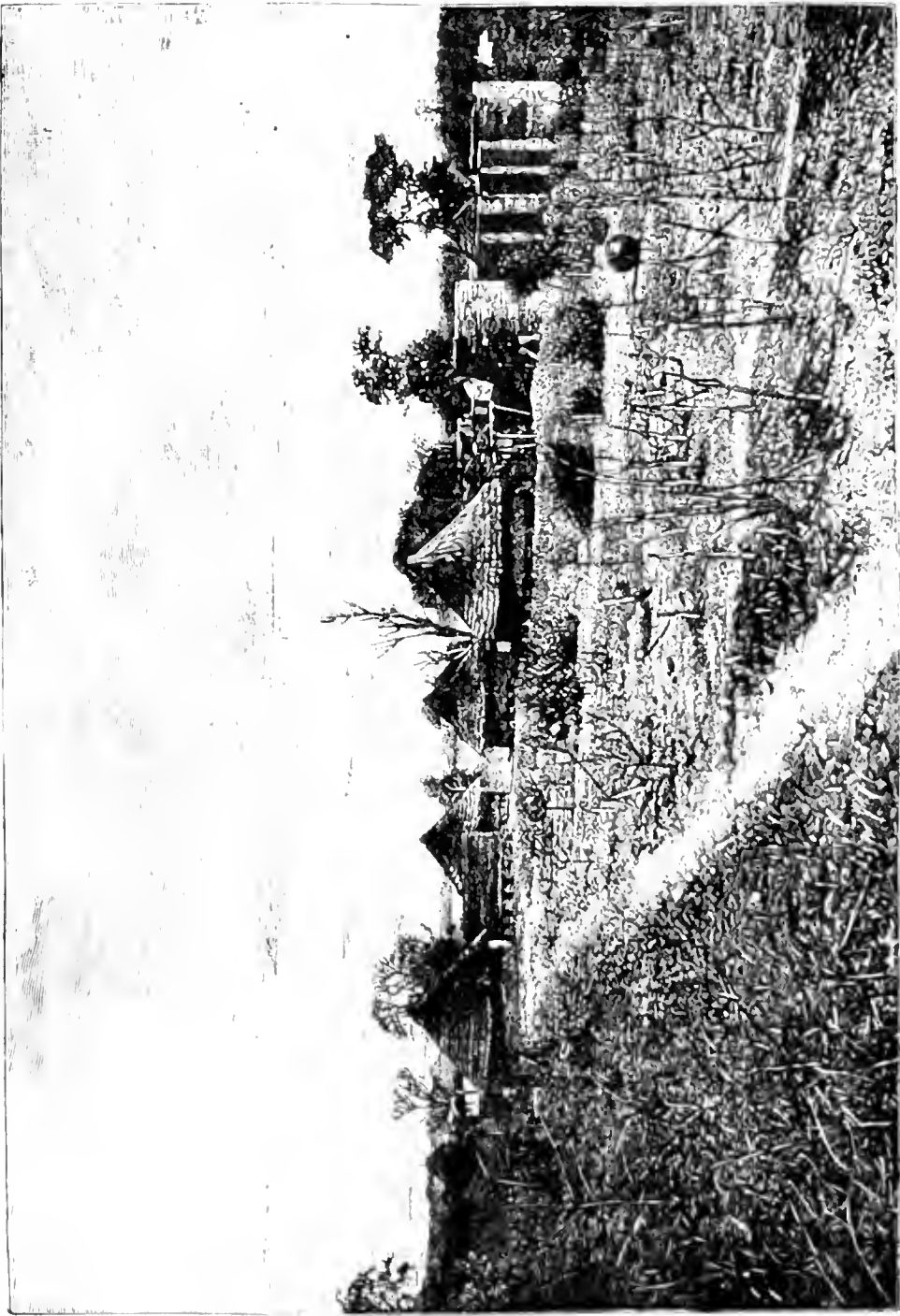


diverge in all directions round about the central uplands, and the chief of which are the Bafing, Falémé, Gambia, and Niger.

*Timbo*, capital of Futa-Jallon, lies 2,560 feet above sea-level in a hilly district encircled by the semicircular valley of the Bafing and traversed from south to north by one of its head streams. Although long a royal residence, *Timbo* consists only of some groups of cone-shaped huts half buried in verdure at the foot of two neighbouring hills. The descendants of the original founders, who came from Massina less than two centuries ago, had alone the right to reside in *Timbo*, where,

however, they spent the dry season only. *Sokotoro*, the "Versailles" of Tindio,

Fig. 63.—VILLAGE OF BAFULABE.



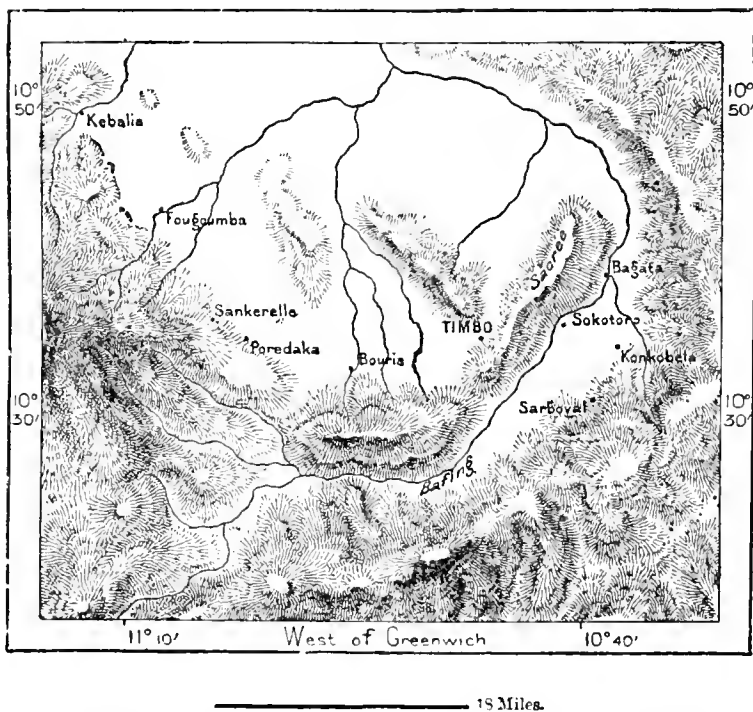
lies some six miles to the east in a cirque enclosed by wooded hills. In the surrounding valleys are scattered some large villages, several of which exceed the

capital itself in population. Such is *Baria*, west of Timbo, where is seen the first orange-tree planted in Futa-Jallon, a magnificent plant with a trunk ten feet in circumference, and branches wide enough to shelter two hundred persons. At its foot stands the tomb of the famous marabout Issa, or "Jesus," before which all riders, even the sovereign himself, must dismount.

*Fugumba*, the holy city of Futa-Jallon, a group of a thousand huts some 30 miles north-west of Timbo in the valley of the Téné, which flows either to the Bafing or to the Falémé, is so embowered in trees that none of the surrounding heights command a complete view of the place. Here the conquering Fulahs erected the first mosque in this region, a lofty conic structure, to which each new sovereign

Fig. 70.—TIMBO AND THE SOURCES OF THE BAFING.

Scale 1 : 900,000.



came to be consecrated king of Futa-Jallon. The most learned commentators of the Koran pursue their studies in Fugumba, north of which follow, on the Bambûk route, some other large places. Of these the most important is *Labé*, capital of a petty state formerly subject to Samory, but now under the protection of the French.

Farther north is the large village of *Tunturun*, towards the south-east *Sefur*, capital of the province of Kolladé, and to the south-west *Timbi*, another provincial capital, a place of three thousand inhabitants in the valley of the Kakrima, which flows to the Atlantic between the Pongo and the Mallecory. Farther north, on one of the headwaters of the Rio Grande, is situated the city of

*Tuba*, said by Gouldsbury to be the largest in Futa-Jallon. It contains eight hundred houses, besides those of the outskirts, and a great mosque, where warriors and traders assemble before setting out on important expeditions.

#### FUTA-JALLON—HISTORIC RETROSPECT.

Although M. Olivier de Sanderval has obtained the concession of a railway to Timbo, the king thus expressed his views on the subject to the traveller Bayol: "I do not want our routes to be widened, or that people come here with boats or railways. Futa must remain to the Fulahs, like France to the French." Now all is changed, and since the overthrow of Samory the whole region forms an integral part of French Sudan. The conquest is of great political importance, because the territory is not only continuous with French Guinea, through which it has access to the Atlantic, but also cuts off the natural hinterlands both of Sierra Leone and of Liberia towards the interior.

The former kingdom of Futa-Jallon was divided into two rival factions analogous to the *sofs* of the Berber tribes. They were the so-called *Sorya* and *Alfaya*, who took their rise after the Fulah conquest, when the first king abdicated in favour of a cousin, thus creating two royal dynasties, each with its champions and followers. To prevent the disintegration of the race it was ultimately arranged, after many sanguinary conflicts, that the two houses should henceforth reign alternately. But no important decision was come to without consulting the king for the time being out of office. On the other hand, the members of the national council were immovable, and their president scarcely yielded in authority to the almaney, or kings, themselves. At each change of party the provincial chiefs had to renew their homage to the titular sovereign. So natural did this division into two factions appear to the Fulahs that they grouped foreign nations in the same way, calling the French *Sorya* and the English *Alfaya*.

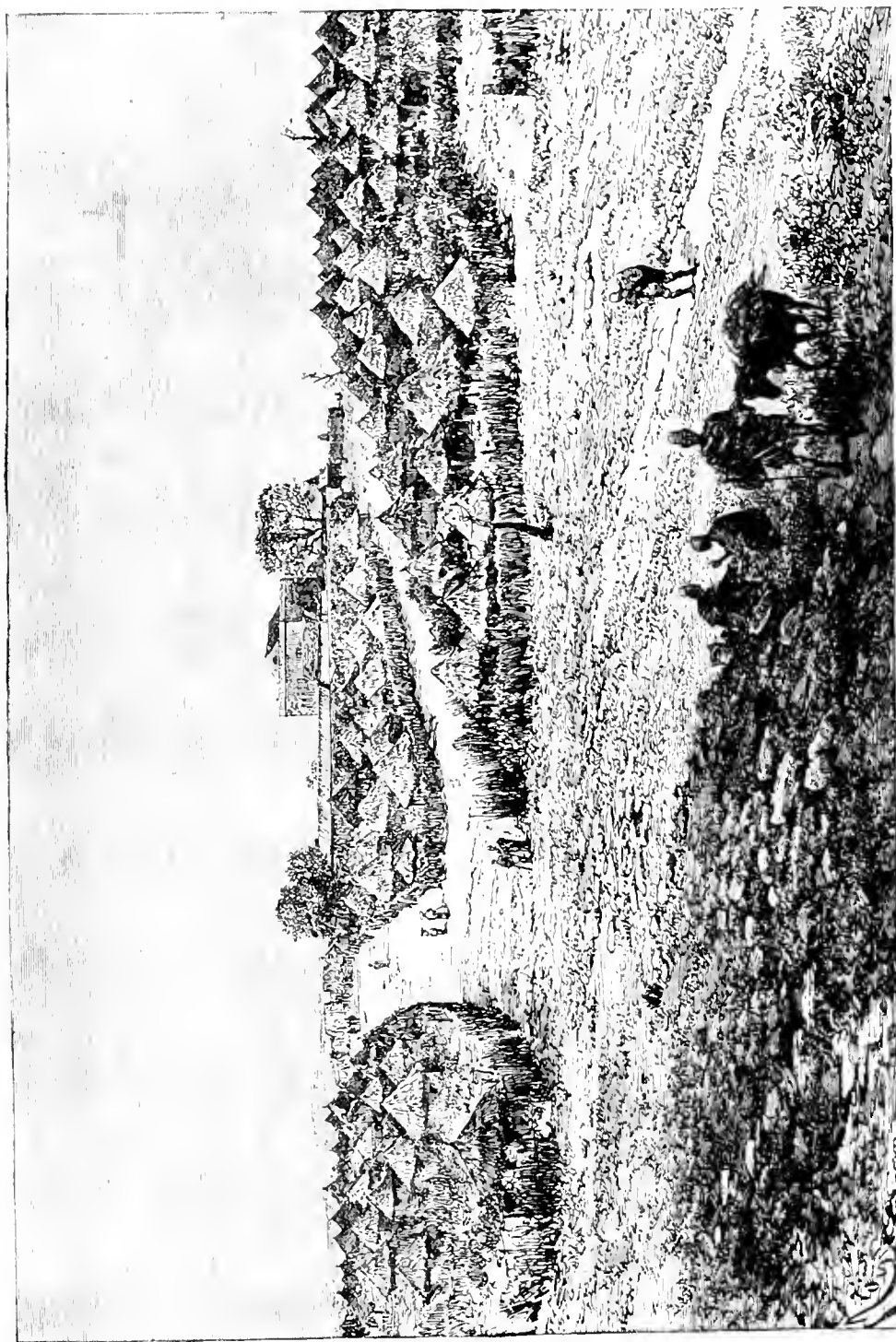
But the true rulers were the families of the notables, who on all serious occasions met in council, and communicated their decision to the almaney. Nor were the Fulahs in other respects a difficult people to govern. So great is the universal respect for the laws, that the accused when ordered by their judges proceeded to the place of appeal without escort, even at the peril of their lives. Ordinary theft was punished with the lash; more serious offences against property with the loss of the hand, then of the second hand and the feet, at each relapse successively. Assassins and even incorrigible drunkards were condemned to death, the criminals digging their own grave and lying down in it to see that it was of the required length.

The state was divided into thirteen *diarals* or provinces, each modelled on the state itself, with two chiefs assisted by a council, and each village with two mayors aided by the notables.

The public revenues comprised a tithe on the crops, "customs" levied on caravans, tribute from conquered populations, and a fifth part of the booty taken in war.

The Senegambian possessions are connected with France partly by elected

Fig. 71.—MEDINA—GENERAL VIEW.

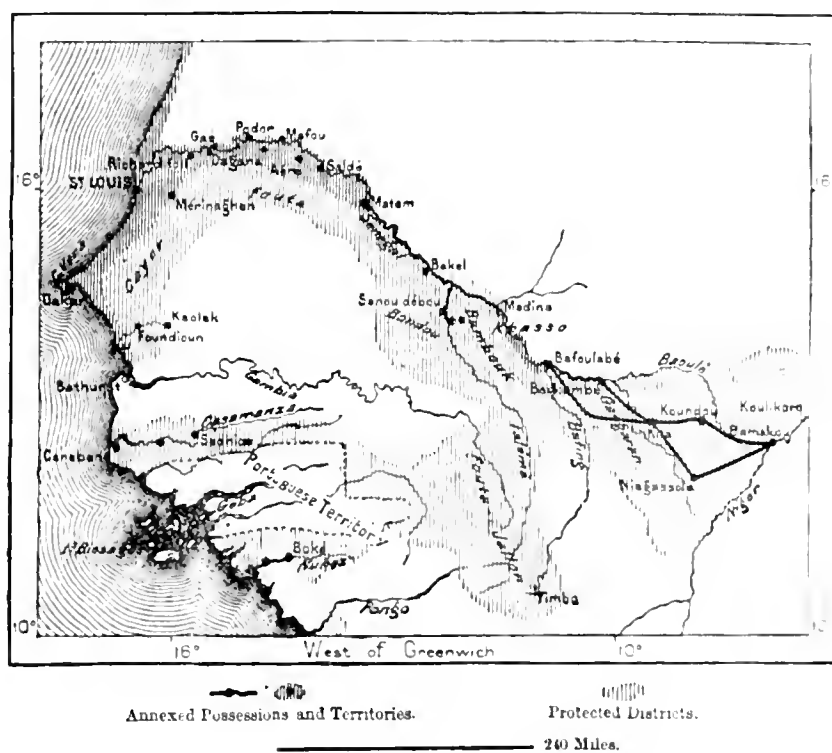


representatives, partly by the officials appointed by the central power. The

former, elected by whites and blacks without distinction of colour, comprise the sixteen members of the general council, and the deputy sent to the Chamber. The chief colonial official, who is invested with extensive powers, takes the title of Governor, and resides at Saint-Louis. A lieutenant-governor is also nominated to administer the southern districts and possessions on the Ivory and Slave Coasts. Owing to the unhealthy climate, home-sickness, personal ambition, and the shifting of political power in the metropolis, these functionaries are often changed, as many as seventeen governors having succeeded each other between the years 1850 and 1886. They are assisted by a colonial council composed of high officials and notables.

Fig. 72.—POLITICAL DIVISIONS OF FRENCH SENEGAMBIA BEFORE 1893.

Scale 1 : 11,000,000.



In 1897 the revenue of Senegal proper amounted to £110,000, which is applied to the local administration, while the military and naval expenses are all defrayed by the home government. The military forces, commanded by a colonel stationed at Saint-Louis, comprise five companies of marines, two battalions of Senegalese rifles, two batteries of marine artillery, a troop of spahis (cavalry), and a few other small bodies, forming altogether a force of about 2,500 men. The administration of French Sudan, which, by the treaty of June, 1898, comprises the Niger Bend as far as Ilo, above Busa, is entrusted to a superior military commandant stationed at Kayes, and dependent on the Governor of Senegal.

Justice is administered by two tribunals, at Saint-Louis and Gorée, and a Court of Appeal. At the capital there is also a *cadi*, nominated by the governor, as well as a Mussulman tribunal presided over by the *tamsir*, or chief marabout, for regulating affairs of inheritance and marriages in conformity with the Koran and Mohammedan tradition. The commandants, especially of the more remote military stations, necessarily enjoy much discretionary power, and usually judge according to the local customs. In principle, however, the French Civil Code prevails, promulgated first in 1830 and again in 1855.

But the territory to which the French judicial and administrative systems have been fully extended comprises only the four communes of Saint-Louis, Gorée, Dakar, and Rufisque, which are administered by municipal councils and mayors nominated by election. The "occupied" territories, comprising the outskirts of the forts, military stations, and factories on the coast, on the Senegal, and on the Niger, are also considered as French soil governed by the colonial administration. But the "annexed" territories are administered by the chiefs, some chosen by the governor, some hereditary or nominated by the people with the approval of the suzerain power. Lastly, the "protected" territories are ruled by semi-independent chiefs, who have surrendered part of their sovereign rights, in return for which France secures to them the possession of their states; since 1879, however, reserving to herself the right of permanently acquiring the lands necessary for the construction of forts, factories, roads, and railways.

But, speaking generally, the administration of the whole region now comprised under the expression *French Sudan* must be considered, with few exceptions, as purely military. In the so-called "colonies" of Senegal and Rivières du Sud some districts are officially spoken of as "*pays possédés*," consisting of a few communes and "territories" which enjoy a certain degree of self-government. In the "annexed countries" the chiefs are appointed by the Colonial Governor, but native laws and usages prevail, as in Walo, Cayor, Toro, Demei, and Damga. Beyond these districts are the "protectorates," such as Futa-Jallon, Massina, Bambara, where the native rule still prevails, the chiefs, however, being appointed by the Governor of Senegal. But much of the region within the Niger Bend is still an undefined area, where French rule is purely nominal, and represented only by strongholds, military officials, colonial forces, and gunboats on the Senegal and Niger, involving an expenditure of over £500,000 above ordinary revenue and tribute.

In the Appendix will be found a table of the circumscriptions and of the vassal territories in French Sudan.





## CHAPTER V.

### SOUTH SENEGAMBIA.

#### GAMBIA.

**T**HE river Gambia might at first sight appear to be the most important waterway in West Africa for penetrating into the interior. Over the Senegal it enjoys the advantage of being much more accessible to shipping, its estuary opening on less stormy waters, while its bar at all times admits vessels drawing 10 feet. Its banks are also more fertile than those of the northern river, and may be cultivated as well in the dry season as after the floods. This artery is, moreover, navigable farther east than the Senegal, and affords direct access to the auriferous regions and fertile valleys of Futa-Jallon, inhabited by the industrious Fulah people. It represents the chord of the vast arc described by the Senegal.

In 1618 the Gambia was explored by Thompson, who ascended as far as the Tenda country, near the Futa-Jallon highlands; but he was murdered on the way, either by his followers or by the Portuguese. Two years afterwards the same route was followed by Jobson, and later by several other explorers, who reached the Barra-Kunda rocks, and unanimously reported that the Gambia was the most direct road to the Upper Senegal regions, and to the auriferous districts of Bambak and Buré. At that time it was even supposed to be a branch of the Senegal itself, and even now Mitchinson asserts that during the floods the two rivers communicate with each other.

But despite all these advantages the Gambia has always remained greatly inferior to its northern rival in political and commercial importance, owing mainly to its more deadly climate, and partly also to the different character of the riverain populations, amongst whom are found neither the enterprising Berbers nor the industrious Toucouleurs.

Nor has this artery an area of drainage at all in proportion to the length of its course. From its source in the Futa-Jallon uplands to the estuary at Bathurst its winding channel develops a total length of about 720 miles, while the basin has a mean breadth of scarcely 40 miles, and a total area of no more than 20,000 square miles. In the southern districts, which have escaped the Mohammedan invasions, the population is reported to be tolerably dense, and the Mandingoes,

Serers, and other Gambian tribes proper, probably exceed twenty thousand souls. Of these some fifteen thousand reside within the British settlement proper, comprising a group of fluvial islands and peninsulas with a total superficial extent of 70 square miles. The whole territory has an area of 2,700 square miles, with a population of 50,000 (1894).

Of all the streams rising in Futa-Jallon, by far the most copious is the Gambia, which drains nearly the whole of the central mass. Eastwards the main branch

Fig. 73.—SOURCES OF THE DIMMA AND COMBA.

Scale 1 : 190,000.



encircles the loftiest summits, while on the west and north-west another branch, the Grey River of the English, collects nearly all the rainfall. Thus the head-streams of the Senegal and Niger, as well as those of the Geba, Rio-Gande, Cassini, and Kakrima, flowing farther south direct to the coast, derive their supplies mainly from the less elevated southern and south-western slopes.

The sources of the Gambia, which have been visited by Hecquard, Bayol, and

Noirot, lie to the north of Labé, 6 miles from the large village of Tunturun, and close to the hamlet of Oré-Dimma, or "Head of the Dimma," as the Fulahs call the Gambia throughout its whole course. About a mile north of this point is a little reservoir forming the source of the Comba, which appears to be the farthest headstream of the Rio-Grande, the chief fluvial basin south of the Gambia. The plateau whence both rivers flow seawards has an altitude of about 3,800 feet.

After flowing east of the Futa-Jallon highlands for 120 miles northwards, the Gambia sweeps round to the west, forcing its way through a series of gorges down to the plains. At Sillakunda, above the last gorge, the channel, averaging 1,000 feet in width, still stands at an elevation of 560 feet. Even after reaching the plains its extremely tortuous course is interrupted by some boulders and ledges, such as the sill of Barra-Kunda, over 270 miles above the estuary. This point is accessible to light craft during the dry season, the most favourable for navigation, the current being then weakest. But usually deep-sea vessels stop much lower down, opposite MacCarthy Island, 170 miles from the mouth, where the tide is still felt in the dry period. The mean discharge has not been accurately measured, but it is known greatly to exceed that of the Senegal, regard being had to the much smaller extent of its basin. But here the rainfall is heavier and more frequent, the period, especially from July to September, being very wet. On August 3, 1861, there occurred a downpour of 9 inches in twenty-four hours, and in the same year two others of over 3 inches each.

But despite the large volume of fresh water rolled down from the upper reaches, the Lower Gambia is an estuary rather than a river, an inlet of brackish or salt water. Above the mouth its banks are over 6 miles apart, although the mouth itself is only  $2\frac{1}{2}$  miles wide, with a mean depth of 65 feet. Here the largest vessels can easily ride at anchor, for the bar, which has still 30 feet at low water, lies some 12 miles off the coast. Several winding branches penetrate far inland, one of which, Oyster Creek, shows by its very name that it is not a fluvial but a marine channel. Other tortuous creeks penetrate through the wooded alluvial tracts northwards to the Salûm estuary.

#### FLORA AND FAUNA.

Above the low-lying tracts about the estuary, the land assumes the appearance of a pleasant verdant region, gently undulating and dotted over with those clumps of trees and green thickets which have caused travellers to compare so many African landscapes to English parks. The riverain plains are much more wooded than those of the Senegal, presenting a far greater number of different species, such as the baobabs, several varieties of palm, and the remarkable shea, or butter-tree. But in many places the woodlands are diversified with savannahs, where the grass grows to a height of over 20 feet.

Wild beasts still hold their ground within a short distance of the English settlements; lions prowl about the outskirts of the villages, and the deep foot-prints of the elephants are constantly met along the muddy tracks. At the end of

the sixteenth century more ivory was still exported from the Gambia than from any other African river, and European vessels have often met herds of elephants swimming from shore to shore of the estuary. The river and neighbouring creeks are also frequented by the hippopotamus and crocodiles.

#### INHABITANTS—THE MANDINGANS.

Below the Fulah and Jallonké territories most of the riverain populations belong to the Mandingan Negro family, which is most numerous represented on the western slope of the hills in this basin, but which also penetrates into the Senegal region towards Bakel and Bafulabé, and into many districts in the zone of the southern rivers. In some parts of Senegambia this nation is best known by the name of Mali'nké, or "Mali-men," recalling the empire of Mali, or Mellé, which formerly embraced the whole of the Upper Niger basin. Even after its destruction by the Songhais, the *mansa*, or "emperor," long retained the veneration of his ancient Gambian subjects.

According to the national traditions, the Mandé or Mandingans (Mandé-ngo, Mandé-nga), came from the east in the sixteenth century, driving before them the aborigines, and breaking them up into a multitude of small ethnical groups such as are now found on the seaboard. The Mandingans are even still advancing, and penetrating northwards into the Serer country, where the royal families belong to their race. But while encroaching in one direction they lose ground in another, and in the east the Fulahs are continually gaining on them. In 1862 the Mandingan marabouts, formerly called *bushreens*, destroyed hundreds of pagan villages and even "towns" along the right bank of the Gambia, and the inhabitants, here contemptuously called Soninkés, had to accept the new faith.

The Mandingans are diversely described by travellers, which is due to their diverse interminglings with other Negro peoples, or with the Fulahs, and also to their different pursuits and other causes. On the Gambia they are distinctly Negroes, rather less black than the Wolofs, with less kinky hair, but a greater degree of prognathism, and broader nose crushed at the root, and with very wide oval nostrils. The expression is stern, almost harsh, although they are really distinguished by great filial affection. "Strike me, but curse not my mother," is one of their sayings, popularised by Mungo Park.

Their language, comprising a great number of dialects, has no written literature, since their conversion to Islam all instruction being communicated through the Koran, and all their spells being composed in Arabic. Mandingan grammars, however, have been composed by the Christian missionaries, who class the language with Wolof, as a suffixing or agglutinating tongue. The Mandingans possess a rich treasure of national myths, tales, and songs, and as musicians they take the first rank among the people of West Africa, possessing not only several kinds of drums and iron cymbals, but also the fiddle, guitar, and lyre.

It was amongst the pagan Mandingans of the Gambia that the English first met the so-called Mombo-Jombo, or village executioners, who were armed with

tremendous powers to overawe and punish all violators of the "custom." At present they are little more than clowns, the laughing-stock of the children. The Mandingans, who are now broken up into many rival petty states, are excellent husbandmen, but display their remarkable talents chiefly as traders. They have been compared to the Sarakolés, "the Jews of West Africa," but, unlike them, are chiefly wholesale dealers, carrying on a large caravan trade between Sierra-Leone and Timbuktu, and extending their expeditions from the Senegal to the lower Niger. Throughout West Africa they are also the chief preachers of Islam, and also command widespread influence as the disseminators of news and the champions of the new ideas, reporting to their brethren in the interior all the strange sights and the marvels of industry which they have witnessed amongst the Europeans of the seaboard.

#### THE EUROPEANS.

In the Gambia basin the European element is relatively very slight, and less influential than on the Senegal. In some years there are scarcely twenty European civilians in this so-called "Colony," and few officials reside long enough in the country to take an interest in the populations with whom they are brought into contact. The whites suffer chiefly from yellow fever, dysentery, and miasmatic infections, while the black soldiers from the West Indies fall victims to small-pox and consumption. It has been ascertained that the Jamaica Negroes resist the climate of the Gambia no better than the whites from the British Isles. Whole battalions have melted away in a few months, the average mortality of the troops being 480 per thousand. The half-caste element is also inconsiderable, not more than a few thousands being collectively classed as "Creoles," most of whom appear to be Catholic Wolofs from Gorée and Rufisque, variously intermingled with Europeans, Mandingans, and Fulahs. Recently also African freedmen from the Niger, from the Slave Coast, and from Sierra-Leone have emigrated into the Gambia territory, where, being mostly Protestants, they hold aloof from the Wolofs, and compete severely with them, especially as retail dealers.

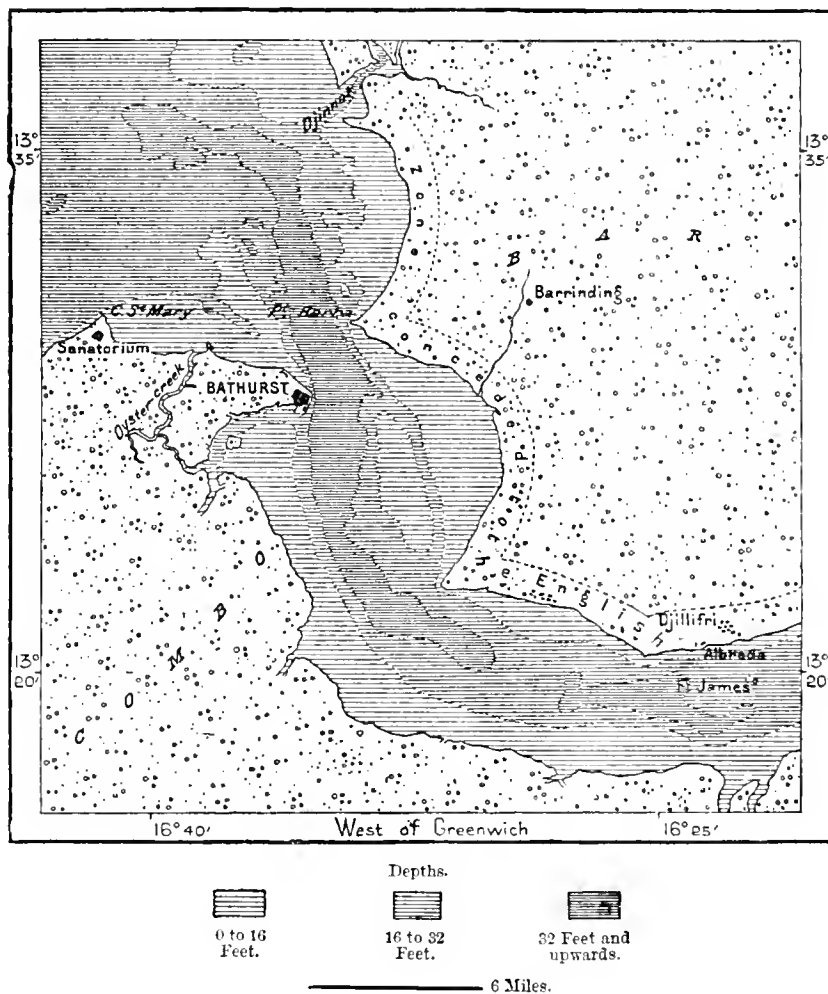
Being hemmed in between the French Senegambian possessions and the southern rivers, the English trade in the Gambia basin is but of secondary importance, the exchanges not exceeding £226,000 in 1897. Although the Gambia presents the shortest natural highway to the interior and to the Upper Senegal, it has, nevertheless, become a sort of cul-de-sac, affording but few means of communication between the inland populations and the markets on the coast. The trade also, which since the middle of the century consists mostly of ground-nuts, has to a large extent fallen into the hands of the French, whose influence has become predominant since the conquest of Futa-Jallon, and will be consolidated by the new railway, which was surveyed in 1897, and is to pass behind the British territories from the Atlantic to the Niger.

In fact, Gambia is already shut in by French territory, "like a mouse in the jaws of a cat," as Mitchinson expresses it in "The Expiring Continent." In 1881

France even acquired the sovereignty of Bélé-dugu, a district on the Gambian slope where the Gambia and Falémé, with their auriferous affluents, are separated by a space of not more than 30 miles. Hence it has often been proposed to exchange the Gambia for some French territory nearer to Sierra-Leone or to Cape

Fig. 74.—BATHURST AND ENTRANCE OF THE GAMBIA.

Scale 1: 400,000.



Coast, whereby the Salûm seaboard would be politically united with that of the Casamanza.

#### TOPOGRAPHY.

*Bathurst*, or, as it was originally called, *Leopold*, capital of the English possessions, was founded in 1816, on the island of Saint-Mary, which forms the southern point of the lands at the entrance of the Gambia. The town was laid out with a certain elegance, houses and barracks being solidly built on a site conveniently

situated for trade, where vessels can lie at anchor close in shore in 70 or 80 feet of water. But the place is extremely unhealthy, the island being surrounded and intersected by pestilential channels and stagnant waters. At less than 3 feet from the surface brackish water is found everywhere, and the current is constantly threatening the very foundations of the town. Nevertheless, over three thousand Yolas or Felubs—that is, Coast Negroes—Mandingans, Serers, and Wolofs, are crowded together in this “water-logged” town. The British Government still pays a small yearly pension to the chief of the Combo Mandingans, who occupy the coast as far south as the Casamanza. The health resort lies in the Combo territory, 7 miles west of Bathurst, at Cape St. Mary, near the village of *Bawor*, on a cliff rising 50 feet above the sea. Here the invigorating marine breeze, jocularly called the “Doctor,” prevails for several hours during the day, carrying off the exhalations from the swamps of the Gambia. It has often been proposed to remove the capital to Cape St. Mary, but the anchorage is bad, and the coast is here obstructed by sandbanks.

North-east of Bathurst the batteries of *Fort Bullen*, erected at Barra Point, command the north entrance of the Gambia. All this part of the coast, for a width of over a mile, belongs to Great Britain, which, however, levies no dues, so that all produce is exported free of charge to the French ports in Senegal. The strip of British territory begins at the Jimak Creek, 9 miles north of Fort Bullen, and follows the right bank of the Gambia, thence to and beyond the Mandingan village of *Jillifri* (*Gilfrai*), near which place the English had their chief factory before the foundation of Bathurst. The trading station of *Albreda* still enjoys some importance, and was formerly a strategic point of great value, thanks to the guns of *Fort James*, erected in mid-stream 20 miles above Bathurst. In 1698 André Brûe founded a French factory at Albreda, which, about the middle of this century, was ceded to England in exchange for Portendik, on the Berber coast. In the botanical world Albreda is famous for its magnificent fig-tree, forming a group of several stems with a joint circumference of 130 feet.

Farther up, *Elephant Island*, at the chief bend of the lower Gambia below the large village of *Yamina*, is the market for the Diara country. *Georgetown*, in MacCarthy's Island, some miles higher up, collects most of the produce from the Niani and Ulli districts in the north, from Diamara and Tumané in the south. MacCarthy's Island corresponds on the Gambia to Fort Bakel on the Senegal, being occupied not by soldiers, but by a small body of police, the last established by the English in this basin. Some 25 miles farther inland are the ruins of *Pisania*, the village chosen by Mungo Park as his starting-point during his first voyage in 1796. Still higher up are the ruins of *Medina*, former capital of the Ulli Mandingans, and near it the trading station of *Fatta Touda*, whence come the best ground-nuts. Boats ascend the river at all seasons to *Yrba Touda*, a little beyond this point.

## DISTRICT OF KANTOR.

One of the southern districts about the sources of the Casamanza bears the

name of Kantora, recalling the market of *Kantor*, of which the early Portuguese writers speak as a centre of traffic rivalling Timbaktu itself. At that time the whole region of the Gambia was called by them the kingdom of Kantor or Kontor. At the time of Gouldsbury's visit in 1879, not a village remained in the district, which had been laid waste by the combined forces of the Bundu and Labé Fulahs, and most of the inhabitants carried into bondage. Above the Barra-kunda rapids, traders generally follow the land route towards Bondu and Bambûk, although the two large villages of *Jalla-Kota* and *Badi* have their ports on the river.

#### ADMINISTRATION.

Gambia has been under the direct administration of Great Britain only since 1821, before which year the factories were managed by a chartered company. The revenue, derived almost exclusively from customs, averages £25,000, and in 1897 there was not only no public debt, but a balance in hand equal to a year's income. The cost of Gouldsbury's important expedition was defrayed out of a surplus of revenue. Since 1870 no military forces are maintained in the settlement, and the police, 111 men, commanded by a European, are nearly all natives of Sierra-Leone. The volunteer corps charged with the defence of the territory has not yet had occasion to be called out. When a tribal war arises, the Government declares itself neutral, but the belligerents bear in mind that the English factories and river craft must be respected by both sides. All the schools are denominational—Protestant, Catholic, or Mohammedan—and as such independent of the civil power. Nevertheless most of the children attend regularly, except in the trading season, when they accompany their parents to the factories.

#### CASAMANZA BASIN.

The Casamanza, so named from the *manza* (mansa) or sovereign of the *Casa* (Cassa) people, is on the whole much more of an estuary than a river. Its sources, at the foot of the Khabu terraces, have not yet been visited, but they certainly do not lie more than 180 miles inland, as the bird flies, for the district farther east, traversed by Gouldsbury in 1881, already belongs to the Gambia basin. Confined north and south between the two parallel depressions of the Gambia and Rio-Cacheo valleys, the Casamanza basin has an area of probably not more than 6,000 square miles, with a population roughly estimated at 100,000.

Since the middle of the sixteenth century the Portuguese have traded in this region. They were even early acquainted with inland trade routes, leading across the creeks and portages to the Salûm, and some Portuguese terms surviving in the local dialects attest their former influence. But their chief trade being in slaves, they could scarcely venture much beyond the enclosures of their fortified



stations, and as the districts became depopulated they had frequently to shift the site of their factories.

The English also founded some stations on the banks of the Casamanza, but never purchased any lands from the surrounding tribes. The French made their first acquisition in 1828, although no settlement was made in the island of Jogné, north of the estuary, which was at that time ceded to them. But in 1836 and 1837 they occupied the two islands of Carabane and Guimbering, commanding the southern entrance of the estuary, and also founded the station of Sedhiu, at the head of the deep-sea navigation. Since that time numerous treaties with the riverain tribes have secured to them the suzerainty or possession of nearly the whole basin, and the convention signed with Portugal in 1886 accurately defines the frontier line of the French and Portuguese territories between the Casamanza and Cacheo rivers. The station of Ziguinchor, the last remnant of Lusitanian power in the Casamanza basin, was then ceded to France, while eastwards the French domain was virtually extended across the unexplored wastes of Firdu and Khabu towards the Upper Gambia and Falémé. Thus the Casamanza is henceforth regarded as belonging politically to the Upper Senegal basin.

At Sedhiu, 105 miles from the sea, the estuary has still a mean breadth of at least  $1\frac{1}{2}$  mile; but it is so shallow that craft drawing 6 feet have to proceed very cautiously, or follow a channel buoyed at intervals with branches of trees. Above Sedhiu boats penetrate for some 60 miles, to the village of Kolibanta; below it the Casamanza is joined only by one large affluent, the Songrogu (probably the Portuguese Sam-Gregorio), which rises in a marshy district near the Gambia basin. Below the Songrogu confluence, which is nearly 3 miles wide during the floods, the lateral channels become more and more numerous, forming a navigable network of some hundred miles shifting with the seasons and years, rising and falling with the daily ebb and flow. The water is everywhere brackish as far as and beyond Ziguinchor, 45 miles from the coast. In the lower part of the delta the channels and backwaters communicate in one direction with the Gambia, in another with the Cacheo estuary. But notwithstanding all these inland crossings and intersections, the seaboard preserves a straight line from Cape St. Mary to Cape Roxo, where begin those intricate indentations so characteristic of all the coastlands in Portuguese territory. The bar of the Casamanza, which first breaks the regular shore-line, is very shallow, with scarcely more than 6 or 7 feet at low water and with three constantly shifting sills. The extensive riverain forests abound in game, and are infested by few rapacious animals.

#### INHABITANTS OF THE CASAMANZA.

In the upper reaches the dominant peoples are the Khabun'ké, or "Khabumen," and the Mandingans, here also called Suzi, the Sossays of the early writers. Advancing constantly from the east, they have driven before them the aboriginal inhabitants; but their progress has been arrested by the French, and they have now ceased to press upon the coast people, just as they have themselves been

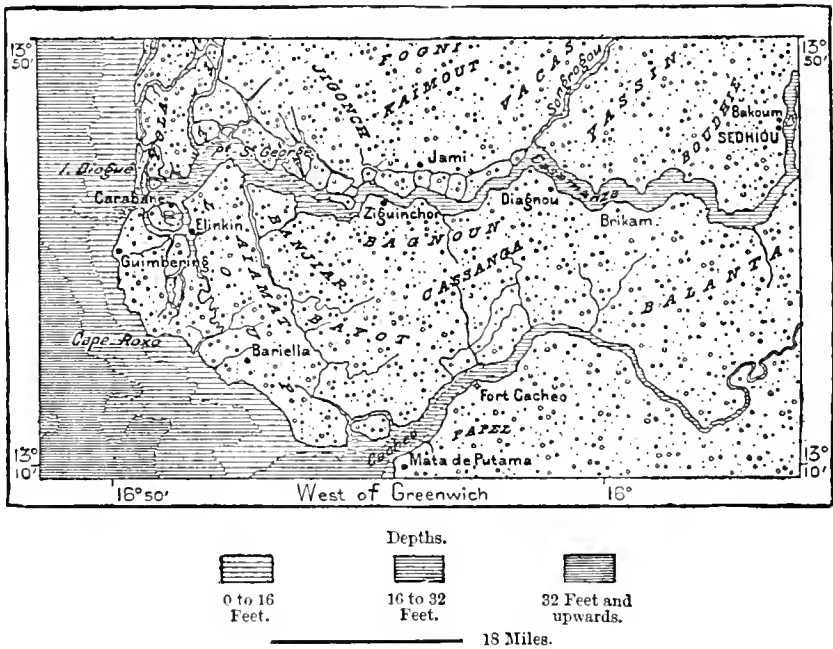
relieved from the encroachments of the inland Fulahs. In the Casamanza basin the Mandingans form petty oligarchic states administered by two dignitaries, the alcaty (cadi), military chief, and the almany, spiritual head of the people.

Beside the Mandingans dwell the Fulah pastors and the Sarakolé agriculturists, who had both accompanied them on their advance from the interior, and who afterwards founded numerous settlements about the French stations. Here they contracted alliances with runaway female slaves, thus giving rise to the present half-castes.

Other districts were occupied by the Balanta intruders from the Geba basin, who, after laying waste certain parts of Budhié and Yassin on the north, have settled down on the south side of the Casamanza below Sedhiu, driving the

Fig. 75.—TRIBES OF THE CASAMANZA.

Scale 1 : 1,300,000.



Bagnun aborigines farther west. A branch of the Bagnuns are the Cassa or Cassanga tribe, who give their name to the river, and whose former capital, Brikam, nearly destroyed by the Balantas, is still seen on the left bank, above the Songrogu confluence.

The Bagnuns are of middle size, much smaller than the Wolofs, but taller than the Felups, with very broad Negro features, large mouth and depressed nose. Like certain American tribes, they might be called Orejones, or "long-eared;" for they pierce the lobe in several places, introducing bits of bamboo which gradually distend the cartilage down to the shoulders. They also file their teeth to a point, like most of the coast tribes, and deck themselves with copper bracelets and other ornaments of that metal. From the Mohammedan marabouts they procure





charms, and holy medals from the Portuguese priests, and subject to the ordeal of poisoning those accused of bewitching men or animals. The old matriarchal usages still prevail among them, as among most of the tribes along the coast. Rank and property are transmitted in the female line, and the women join in the village deliberations, often exercising a decisive influence on the issue.

The coast peoples, hemmed in by the invaders from the interior, have received from the Portuguese the collective name of *Felups*, and they certainly show a common affinity in their usages and language. But they have lost all national coherence, and are now broken up into a multitude of distinct clans, each with its tribal name and separate territory, mostly some island or peninsula in the delta. Westwards, near the sea, dwell the *Aiamats*, *Yolas*, *Kabils* or *Karons*; farther east, but north of the *Casamanza*, the *Jigushes* or *Juguts*, the *Fognis*, the *Kaimuts*, and those *Felups* of the *Songrogu*, whose large heads have earned for them the Portuguese name of *Vacas*. South of the river follow the *Banjiars*, *Fuluns*, and *Bayots*, these being most distinguished by their speech and diminutive stature from all the *Felup* peoples.

From a former higher period of culture most of the *Felups* have preserved the art of erecting relatively large and comfortable dwellings, very substantial earth houses which resist the weather for years, and which are divided into several compartments in the interior. The *Felups*, on the right bank of the river, build very large and shapely canoes with the trunk of the bombax, and manufacture arrows, darts, and swords, which they use with much skill. But the social and political bonds are very loose, every hamlet, so to say, constituting a separate state. Even family ties are easily formed and as easily dissolved, and in some places the children are destined beforehand to serve in the household of the village chief.

Most of the *Felups* have the idea of a supreme being, who, for them, is at once the heaven, the rain, the wind, and the storm. Ruled by terror, they are a prey to the medicine-men, and nowhere else in Africa are the wizards more invoked and more hated. They are accused of killing by their malevolent arts and philtres, and they are at times themselves seized and tortured to death. But social changes are gradually taking place amongst the *Felup* populations settled in the neighbourhood of European factories, and employed by the traders as carriers.

#### TOPOGRAPHY.

In the *Casamanza* basin the chief military and commercial station is *Sedhiu*, called also *Frances-Kunda* ("House of the French"), which since its foundation in 1837 on the right bank, at the head of the navigation, has become a real town with European buildings and extensive depôts. Some native villages have sprung up round about, whence are obtained ample supplies of provisions of all sorts. *Ziguinchor*, the old Portuguese station ceded to France by the recent treaty, and situated on the left bank, below the *Songrogu* confluence, occupies a favourable position for the overland trade between the *Gambia* and *Cacheo* basins. On the

same side, but much lower down, lies *Saint-Georges*, in a fertile district exposed to the refreshing sea-breezes. But the largest place in the delta region is *Carabane* at the northern extremity of the island of like name, which may be compared to Bathurst for its watery soil and insalubrious climate.

Some six miles to the south-east of *Carabane* stands the old English factory of *Lincoln*, which has become the wretched village of *Elinkin*, inhabited by the riff-raff of various populations, much dreaded by their neighbours.

#### GUINÉ—PORTUGUESE POSSESSIONS IN SENEGAMBIA.

The geographical expression Guiné (<sup>o</sup>Guinea) applied by the early Portuguese navigators to the whole of the West African seaboard, from the mouth of the Senegal to that of the Orange, has gradually lost this comprehensive signification. According as the coast-lands became better known they received more special designations, and in ordinary usage the term Guiné is now restricted to the Portuguese possessions between the Casamanza and Componi basins. The Franco-Portuguese convention of 1885 has sharply delimited these possessions, not by natural features such as rivers and mountains, but by degrees of latitude and longitude. The territory, if not already subjected to Portugal, at least assigned to her future sway, may be estimated at about 17,000 square miles, while in 1898 the portion really occupied did not exceed 30 square miles, with a total population of some 10,000. Even the inhabitants of the whole region cannot number much more than 150,000, notwithstanding the exaggerated statements of some Portuguese writers. At the same time there can be no doubt that millions might be supported in this fertile territory, which is abundantly watered by the rivers descending from the Futa-Jallon highlands.

Portuguese Senegambia lies entirely within the zone of fjord-like rivers and estuaries, carved out by the waves into numerous peninsulas and archipelagoes, still limited westwards by the ancient coastline. These various streams, rising on the uplands for the most part to the east of the Franco-Portuguese frontier, are very copious in proportion to the extent of their basins, and like the Casamanza and other northern arteries, may be ascended by shipping far into the interior.

The Cacheo, northernmost of these streams, called also Rio de Farim and De Santo Domingos, runs nearly parallel with the Casamanza, from which it is separated by a gently undulating tract with a mean breadth of 24 miles. In their lower course the two estuaries intermingle their waters through an intricate system of channels and marshlands, beyond which the Cacheo enters the sea through a wide mouth obstructed by a muddy sill.

The Geba, south of the Cacheo, rises as the Ba-Diamba in the unexplored region limited eastward by the headwaters of the Gambia, flowing thence parallel with the Cacheo, but soon losing its fluvial aspect. For a space of over 60 miles it develops a wide estuary like a great arm of the sea, accessible to vessels of considerable draught and no less than 10 miles wide at its mouth. In front of this mouth are scattered the Bissagos islets and reefs, forming a vast labyrinth of

channels dangerous to navigation, but which may be avoided by one of the lateral

Fig. 76. — VALLEY OF THE TOMINÉ.



passages communicating directly with the Geba. Farther south this system of

channels merges in the Rio-Grande estuary, less spacious than that of the Geba, although the latter appears to be much the smaller river of the two.

### THE RIO-GRANDE.

The Rio-Grande, called also the Guinala, appears to be the chief waterway in Portuguese Senegambia. It is supposed to rise on the same plateau as the Gambia, flowing not east but west, and under the name of the Comba collecting numerous torrents from the Futa-Jallon highlands. Of these the largest is the Tominé, which also gathers its first waters from the neighbourhood of Labé. One of the districts traversed by it is intersected by such a number of rivulets that it takes the name of Donhol, that is, "Land of Waters." Even in the dry season it has a discharge of over 350 cubic feet per second at 90 miles from its source, where it winds through a broad valley skirted on both sides by cliffs from 850 to 1,000 feet high, above which rise the escarpments of the granite rocks, presenting the appearance of superimposed bastions. Lower down the Tominé leaves the region of primitive rocks, trending northwards to the Comba through blackish sandstone and ferruginous quartz walls furrowed at intervals by the rocky beds of wild mountain torrents.

Below the Tominé-Comba confluence the united stream deserves its Portuguese name of Rio-Grande, for here it is already a "great river," as attested by Gouldsbury and other travellers, who crossed towards the head of the bend it describes from north to west, parallel with the Geba. But in this district a part of its course no less than 90 miles long remains still to be explored, so that it is somewhat doubtful whether the Comba discharges into the Rio-Grande estuary, or flows north-west to the Geba. But as figured on the maps the Rio-Grande would comprise the whole of the Tominé basin, with a total length of about 450 miles. The tides, which ascend 60 miles into the interior, convert the lower reaches into an intricate system of saline channels winding round a number of marshy alluvial islands, which are continued seawards by the Bissagos archipelago.

Farther south the seaboard is broken into peninsulas and projecting headlands by several creeks or streams terminating in estuaries, and all flowing parallel to each other from north-east to south-west. Of these the Cassini alone deserves the name of river. Rising 120 miles from the coast in the hilly region west of the Tominé basin, it enters the sea through a funnel-shaped inlet accessible to the largest vessels for 30 miles.

### THE BISSAGOS ARCHIPELAGO.

The Bissagos Islands, which were formerly attached to the mainland, differ from the other insular formations only in their more seaward position, and in the greater breadth of the intervening channels, which have not yet been thoroughly explored. The group, which is defended seaward by a line of dangerous breakers, comprises about thirty islets of various size, besides innumerable reefs, many of



which are flooded or decomposed into secondary islets by the tides, which here rise 13 or 14 feet. Thus at low water Caguabac forms continuous land with Porcos and Gumbana, while Gallinhas, Formosa, Ponta, Corbelha become attached to the neighbouring lands. The archipelago, the navigation of which is rendered extremely dangerous by the strong currents and shifting character of the channels, terminates southward in the isolated Alcatraz, or "Pelican" rock, round which hover dense clouds of aquatic birds.

Fig. 77.—BISSAGOS ARCHIPELAGO.

*Orange*, or *Harang*, largest member of the group, is mostly sandy, with a scant vegetation, whereas the others are generally covered with tall palms and gigantic baobabs, which from a distance seem to grow right out of the water. All the islands are low, and disposed in the direction from north - west to south - east parallel with the mainland. Beleher and the other early explorers described the group as volcanic, but the rocks supposed by them to be eruptive were probably ferruginous clays, analogous to those on the West African seaboard. The islands, mere fragments of the old coast, consist of the same formations and present identical features. Whether through erosion or slow subsidence, the sea has encroached on the land, converting peninsulas into islands, islands into reefs and banks, the lower reaches of the rivers into estuaries, and these into marine inlets. During these secular transformations number themselves to the slowly elsewhere rarely seen far from the south-west coast of the rivers.

Fig. 77.—BISSAGOS ARCHIPELAGO.

Scale 1 : 3,000,000.



secular transformations numerous animal and vegetable species have had to adapt themselves to the slowly changing environment. Such is the hippopotamus, elsewhere rarely seen far from freshwater streams, but which Belcher met on the south-west coast of Cagnabac (Kanabak), over 30 miles from the coast rivers.

## CLIMATE—FLORA—FAUNA.

The climate of Guiné differs in no respect from that of the Gambia and Casamanza, except that the mean temperature is higher and subject to greater extremes, which is doubtless due to the proximity of the hilly uplands in the interior. Near the coast the glass falls at night sometimes to  $53^{\circ}$  F., oscillating in the cold season, from November to January, between  $53^{\circ}$  and  $59^{\circ}$  F. after sunset, and in the day rising to  $77^{\circ}$ ,  $86^{\circ}$ , and even  $110^{\circ}$ . But at other times the temperature is much more uniform, showing for the whole year a mean of  $78^{\circ}$  at Bissao. The rainfall, not yet accurately measured, is very considerable, the wet season, accompanied by frequent thunderstorms and heavy downpours, lasting for nearly five months, from the middle of May to the end of September.

Notwithstanding this copious rainfall the forests are less dense and continuous than in the tropical regions of the New World. Extensive tracts, even in the Bissagos Islands, are crowned by *campinas*, or savannahs of tall grasses or reeds, above which rises here and there in isolated majesty a solitary giant, in one place a palm, in another a baobab or a butter-tree. Behind the mangrove-fringed banks of the estuaries begins the forest proper, including a great variety of species, such as acacias, date and oil palms, and the so-called "rain-tree," whose foliage, especially at sudden falls of temperature, collects the night dew and precipitates it as rain in the morning.

The fauna, richer than that of Senegal, belongs to the zone of equatorial Sudan, including numerous species of the ape family, amongst which the chimpanzee is said to be found. Several large animals, such as the giraffe, zebra, and apparently the elephant, have disappeared, although the hippopotamus, wild ox (*bos brachyceros*), leopard, and crocodile still abound. Birds are very numerous, and nowhere else in Africa do the termites build such large compact ant-hills, mostly pyramidal in shape and hard as stone. All the creeks and estuaries are well stocked with fish, yielding abundant supplies of food to the natives.

## INHABITANTS.

These natives form a perfect chaos of small groups, each with its distinctive name, but otherwise without any ethnical value, and liable to constant fluctuations with the changes brought about by migrations, alliances, and conquest. Hence the discrepancies in the statements of travellers who have visited the country at different periods. Of the nine distinct nations mentioned by De Barros, three only, the Biafars, Papels, and Bujagos, are comprised entirely within the Portuguese possessions. The Fulahs and Mandingans are intruders from the east, while the Felups, Balantas, Bagnuns, and kindred Buramos (Brames) are met also on the Casamanza, and the Nalus in the Rio Nunez and Cassim basins.

Besides the Fulahs proper, this region has been invaded by the half-caste *Fulas pretos*, or "Black Fulahs," resembling the Toucouleurs of French Senegambia. Of the indigenous peoples, the Balantas, occupying most of the space between the

middle Casamanza and the Geba estuary, are the most valiant, and might form

Fig. 78.—LANDSCAPE IN GUINÉE: VIEW TAKEN NEAR BOLAMA.



powerful nation but for their numerous and often hostile tribal subdivision. Each

village forms an independent petty state ruled by the wealthiest family. The Balantas are distinctly black, but smaller and less symmetrical than the Wolofs, with very long skulls, retreating forehead, and small bloodshot eyes. Of all the natives they are the most addicted to plunder, and as theft is a capital crime, they are especially proud of the "heroic" valour displayed by them on predatory excursions. Special professors are appointed to teach the noble art of robbery, and the village youth are not regarded as men until they have distinguished themselves as footpads or marauders.

The Papels or Burnés are centred chiefly in the district between the Cacheo and Geba estuaries to the west of the Balantas, whom they closely resemble in physical appearance and social usages. Like them, they bury the dead with great pomp, and at least, until recently, their chiefs were accompanied to the other world by several maidens buried alive. Even in 1860 human flesh still formed part of the "baked meats" at funeral banquets in some remote districts. The Papels are, however, distinguished by their artistic taste, and to their designers are due the ornaments with which the native earthenware and calabashes are embellished.

Although showing no kind of respect for their dead, the Biafars, or Biafadas, are the mildest and most pacific of all the Guiné peoples. The Nalus, their southern neighbours beyond the Rio-Grande estuary, are also distinguished for their sociable habits. Amongst them marriages are exogamous, and when a young man selects his bride from a neighbouring tribe, he sends his sister to her brother by way of compensation.

The Bujagos or Bijugas, who occupy the Bissagos archipelago and a part of the opposite coast, are a fine Negro race, proud, intrepid, and from infancy accustomed to endure physical pain unflinchingly. They were long dreaded by the Europeans as formidable corsairs, being the only people on this seaboard who ventured on the high seas to any distance from the coast. In their warlike expeditions the men smeared themselves with ochre and decked their heads with plumes and metal ornaments; but they soon learnt to exchange their primitive bow and arrows tipped with poisoned fish-bones for swords of European make. Their fetishes, representing men and animals, are carved with singular truth to nature, and compared with similar objects elsewhere in West Africa may be regarded as genuine works of art. In some of the Bissagos islands matriarchal rites still prevail among the Bujagos.

Islam is spreading amongst all the coast tribes, and in the Nalu county Muslim communities already reach all the way to the sea. In pre-Mohammedan times the natives were mostly devil-worshippers, considering it useless to pray to the good spirits, and reserving their supplications only for the maleficent genii. Where these views still survive the people assemble at some *china*, or sacred spot, such as a great tree, the seashore, or the chief's dwelling, and here sacrifice an ox, a goat, or a fowl, reading the pleasure of the demon in the entrails. If the prescribed rites have been faithfully performed it is always favourable, and the evil one betakes himself elsewhere. To circumvent the minor spirits, who bring



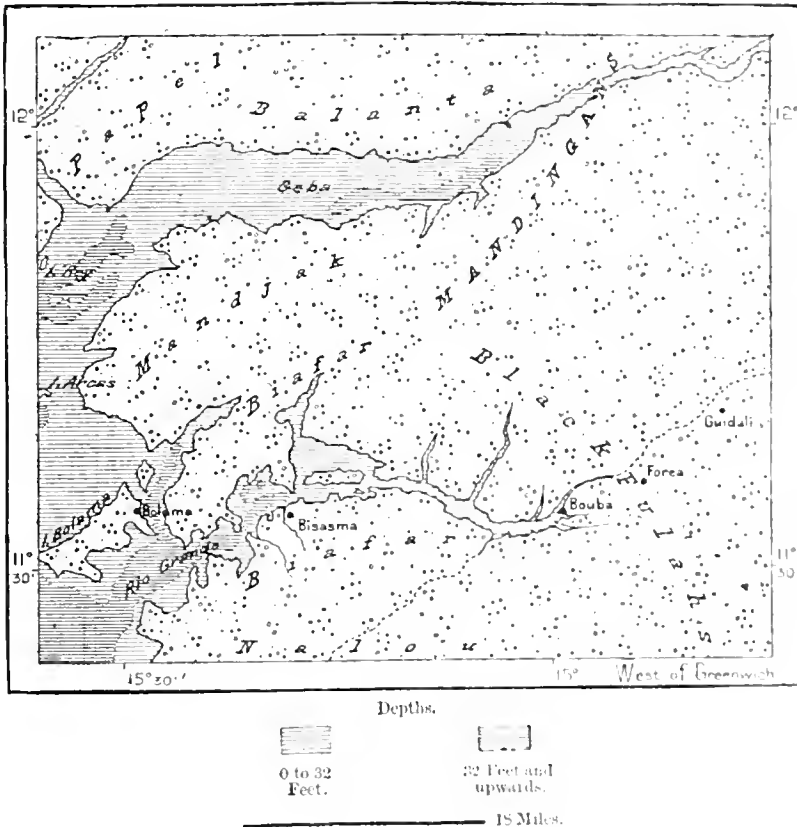


bad luck and bewitch men and animals, recourse is had to the *jambha-coz*, or wizard, who generally succeeds in averting the pending evil and driving away sickness. But should the victim happen to succumb, it is explained that this was because he wished to die in order to begin a new life beyond the grave, and thus the credit of the magician is upheld.

Amongst these populations trees, rocks, animals, colours, sound, everything assumes a favourable or sinister aspect; hence all objects of ill-omen are tabooed, whole districts being at times interdicted. Anyone penetrating into such places

Fig. 79.—TRIBES OF THE CASAMANZA.

Scale 1 : 300,000.



would be immediately punished with death by poison. This practice prevails especially amongst the Felups and other tribes of the Geba basin, where the poisoned cup either produces vomiting or fatal convulsions, thus proving the guilt or innocence of the accused. These barbarous populations are ruled by the dread of the unknown. But as human nature cannot endure a perpetual state of terror, violent reactions set in, during which they frequently give themselves up to the wild delights of music and the dance.

The European race is here represented by about fifty persons, including soldiers, traders, and a few convicts. Nevertheless the Portuguese have, in the course of

centuries, acquired considerable influence over the native populations, and the general medium of intercourse is the so-called Pape, a jargon or *lingua-franca* of Portuguese origin, which is variously affected by Negro elements, according to the predominant speech of the several districts. Like all such "pidgin" languages, it has a very limited vocabulary and a rudimentary structure, discarding grammatical gender and modifying the verbal senses by means of invariable auxiliaries.

#### TOPOGRAPHY.

The six thousand or seven thousand natives directly subject to the Portuguese administration are scattered over an extensive space, along the banks of the estuary and throughout the Bissagos Islands. In the Cacheo basin the only stations are *Farim* in the Balanta territory, about 120 miles from the coast, and *Cacheo* (Cachea) on the south side of the estuary, here accessible to vessels drawing 10 feet. *Bissão*, in the island of like name at the north entrance of the Geba, consists of a fort, round which are grouped six native villages, each with its *regulo*, or head man.

But the most important settlement is *Bolama*, capital of Guiné, residence of the governor and headquarters of the troops. The little town lies on a creek dry at low water, and separating the island of Bolama from the mainland at the north entrance of the Rio-Grande. This place was occupied in 1792 by two hundred and seventy-five English settlers, who were soon reduced by famine and sickness to a handful of wretched survivors, saved from certain death by returning to England. Since then the possession of Bolama formed the subject of litigation between Great Britain and Portugal, the question being decided in 1870 by the United States in favour of the latter power. But the trade of the place is in the hands of French houses, which export ground-nuts, and copal collected at the foot of the trees and said to be the finest in the world. The port, lying to the south-west of the town, is well sheltered, and the island, formerly overrun by herds of elephants, now produces some corn, sugar, and vegetables.

In the Rio-Grande estuary the two chief Portuguese stations are *Bisasma* and *Baba*, both on the south side, the former near the entrance, the latter at the head of the navigation. Farther inland are *Guidali*, a little fort recently captured by the Portuguese from the Fulahs, and *Kádé*, on the great curve of the Comba below the Tominé confluence, a place much frequented by Mandingan traders. In the neighbourhood dwells the peaceful and unwarlike Tiapi agricultural tribe, speaking a peculiar language totally distinct both from the Fulah and Mandingan.

#### THE SOUTH SENEGAMBIAN RIVERS ("THE SOUTHERN RIVERS").

The whole seaboard stretching north-west and south-east for 240 miles in a straight line between Portuguese Guiné and the British territory of Sierra-Leone, has been named the "Southern Rivers," as if the mouths of the rivers visited by traders and mariners had alone any value in their eyes. This region has



been frequented since the fifteenth century, and English, Portuguese, and German factories established at various points. But the trade is chiefly in the hands of the French, whose political suzerainty over all the coastlands and river basins has been recognised by various conventions with Portugal and England.

Yet this territory can scarcely be described as a colonial possession, being utilised only for trading purposes, and seldom visited by merchants except during the five months from December to April, for the purchase of oil-seeds, sesame, caoutchouc, gums, wax, skins, gold dust, and other produce. But, notwithstanding its great fertility and boundless resources, the whole region is very little known, except in the Nuñez and Searcies basins. The lower courses are still doubtful of the rivers whose sources have been discovered in the Futa-Jallon uplands. Nor is it easy to determine the extent of the territory assigned to France, which, however, at an average depth of about 120 miles between the seaboard and Futa-Jallon, may be roughly estimated at 21,000 square miles. The native population being relatively dense on the coastlands, may be rated at not less than two hundred thousand. The petty states of Koba and Kobitai, on the Sangarica estuary, have alone over thirty thousand inhabitants.

Like the Portuguese Guiné, the whole seaboard is broken into peninsular formations, which, at high water, are converted into a labyrinth of islets. But the estuaries seldom penetrate far inland, as the ground here rises somewhat rapidly towards the Futa-Jallon highlands. The northernmost stream, known at its mouth as the Componi (Campuni), and higher up as the Cogon, sends down a considerable volume, which in the estuary ramifies into several branches. One of these encloses on the west the island of Tristam, which is the first French territory on this seaboard, and which still bears the name of the Portuguese navigator, Nuno Tristam, who discovered it in 1445.

The Rio Nuñez (Nunez), the Nuno of the Portuguese, is also named from the same mariner who first explored it, and here perished in a conflict with the natives. The Kakundi, as it is locally called, is less copious than the Componi, but of more commercial value, being unobstructed by any bar, and accessible to large vessels for about 40 miles inland. Here the tides, the highest on the coast, rise to over 20 feet high, and rush at times with a velocity of 5 or 6 miles an hour far up the estuary.

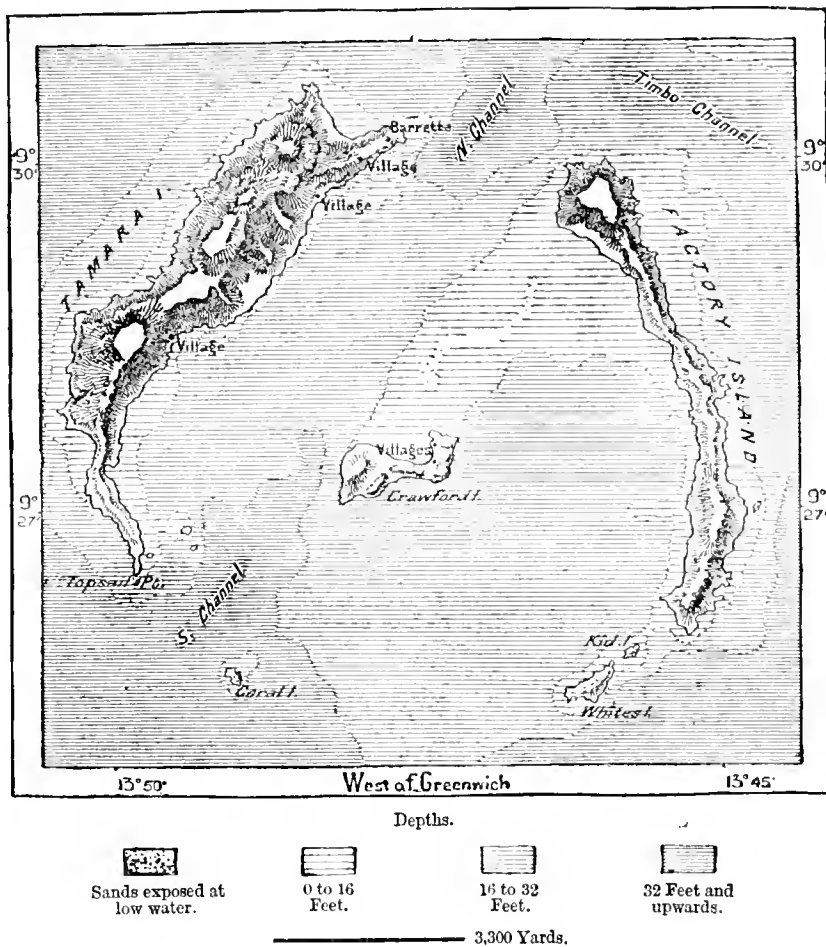
South of the Nuñez follows the Katako, of difficult access, and some 60 miles farther on the Rio Pongo (Pongos, Pongas) whose headstreams have their source in the south-western valleys of Futa-Jallon. Its estuary ramifies into numerous secondary branches, developing for a space of 15 miles an extremely intricate system of channels navigable at high water. But the bar is most dangerous on this coast, and during the floods the ebb tide rushes down at the rate of 8 or 9 miles an hour, which seems to imply a considerable discharge.

But, judging from its upper course, a still more copious stream is the Kakriman (Kakrima), which has its source in the same uplands as the Gambia, Rio-Grande, and Senegal. Where it was crossed by Olivier, 1,400 feet above sea-level, its discharge was at least 1,800 cubic feet per second, and it cannot be forded even

in the dry season, although rendered unnavigable by falls and rapids. For a stretch of 120 miles in a straight line below these obstructions its course has been surveyed by no explorer, so that it is still somewhat uncertain whether the Kakri-man is the upper course of the Brameya, which enters the sea midway between the Pongo and the Mallecory at the broad estuary of the Sangarca. According to the natives the Brameya is navigable for one or two hundred miles by craft

Fig. 80.—THE LOS ISLANDS.

Scale 1: 120,000.



drawing 10 feet; but the current is interrupted by a series of dangerous rapids within 36 miles of the sea.

#### THE LOS ISLANDS.

In the interior the hills and plateaux disposed in successive terraces and at some points approaching the coast, enjoy a salubrious climate suitable for European settlements. Mount Kakulima, near the east side of the Sangarca estuary, rises to a height of 3,000 feet above the surrounding savannahs and palm-groves. It

is of perfectly conic shape, apparently terminating in a crater, and according to the natives at times emitting a light column of smoke. But no European has yet been permitted to ascend the "sacred mountain," so that its volcanic character is still doubtful.

Towards the south-west the heights are continued through the long peninsula of Konakri and the island of Tumbo, which project westward in the direction of the Los archipelago. These "Islas de los Idolos," or "Islands of the Idols," are so called from the sacred images here found by the early navigators. They are certainly of volcanic origin, the two principal members of the group exceeding 600 feet in height and disposed in the form of a vast and ruined crater encircling a central cone-shaped islet. The prevailing formations are blue and yellowish lavas surrounding large masses of porphyry.

The Mallecory (*Mellucoré*) river south of the Konakri peninsula, is little more than a marine estuary, like the neighbouring Manca, Morebia, and Forekaria; but it is of more commercial importance, giving access to a better-known region. A little farther south follow the Great and Little Searcies, the Rios dos Carceres of the early Portuguese writers, which are true rivers, sending down a considerable body of water. The Little Searcie especially, despite its name, is a large stream fed by copious affluents, one of which, the Fala, rises on a low saddleback within 24 miles of the Niger. The two Searcies, flowing from Futa-dallon and the neighbouring uplands south of Timbo, gradually converge towards each other, discharging in the same island-studded bay. Since 1882 their lower course, with the adjacent coast, belongs to Great Britain, the Anglo-French frontier here following the parting line between the Mallecory and the estuary of the Great Searcie. The neighbouring islet of Matacong belongs to France, while the Los Islands are British territory.

#### CLIMATE, FLORA, AND FAUNA.

The climate, flora, and fauna differ little from those of north Senegambia. During the hot rainy season calms alternate with storms accompanied by frequent waterspouts and torrential downpours, while in the relatively cool season the trade winds are weaker and less regular than in the north. Instead of blowing from the normal north-east direction, they take a southerly course, or else follow the shore-line, or are even deflected towards the interior of the Continent. But in January the true north-east wind, that is, the Saharian harmattan, resumes the ascendancy, often charged with the desert sands and attended by dense and insalubrious morning fogs.

Plants yielding cashew-wood abound in the forests of the Rio Nuñez. The coffee of the same region, well known in commerce, has a smaller berry but scarcely less flavour and aroma than the Mocha variety. A still more valuable plant is the oil-palm (*Elveis guineensis*), which here first acquires the importance of an economic product. The Mallecory basin is also a chief centre of the kola nut (*Stereulia acuminata*) industry. The kola flourishes best in a dry ferruginous soil exposed to periodical rains, where it attains a height of 65 or 70 feet. The nut

is very bitter, but after tasting it all water, however foul, acquires an agreeable flavour. The juice of the fruit rubbed into the body also affords complete protection against mosquitoes, and by the natives the same fruit, richer in theine than tea itself, is regarded as an almost universal specific. There are two varieties, one yielding red the other white nuts, the latter being a symbol of peace, the former of bloodshed, when sent by a chief to his neighbour.

#### INHABITANTS.

Here as elsewhere throughout West Africa the more civilised populations are those of the interior, who by continually advancing westwards have broken up the ethnical cohesion of the coast tribes. In the north the chief people thus encroached upon are the *Bagas*, from whom this region takes the name of Bagatai. In the last century Adanson called them Vagres, a name probably identical with that of Cape Verga, the most advanced promontory on the coast. South of this headland dwell the *Sapés* or *Sumbas*, akin to the *Bagas*, and of much lighter complexion and less Negroid features than most of the other coast tribes. A marked physical peculiarity, which at once strikes all observers, is the almost geometrical horizontal position of the plane connecting the neck with the chin. The Baga men are generally well clothed, whereas the women wear little beyond a thread on which are strung rags, pearls, rings, wood or metal ornaments. The rich also insert a ring in the cartilage of the nose, and all pierce the lobe of the ear for the insertion of rice-straw. Field operations are performed by the men, who are very industrious and of peaceful habits, so that the Bagatai territory is regarded as a place of refuge, in which all natives go unarmed. Till recently every Baga village formed an independent petty state; but the French Government has now brought all at least in the Nuñez basin under the jurisdiction of the king of the *Nalus*, himself subject to the military commander of Boké.

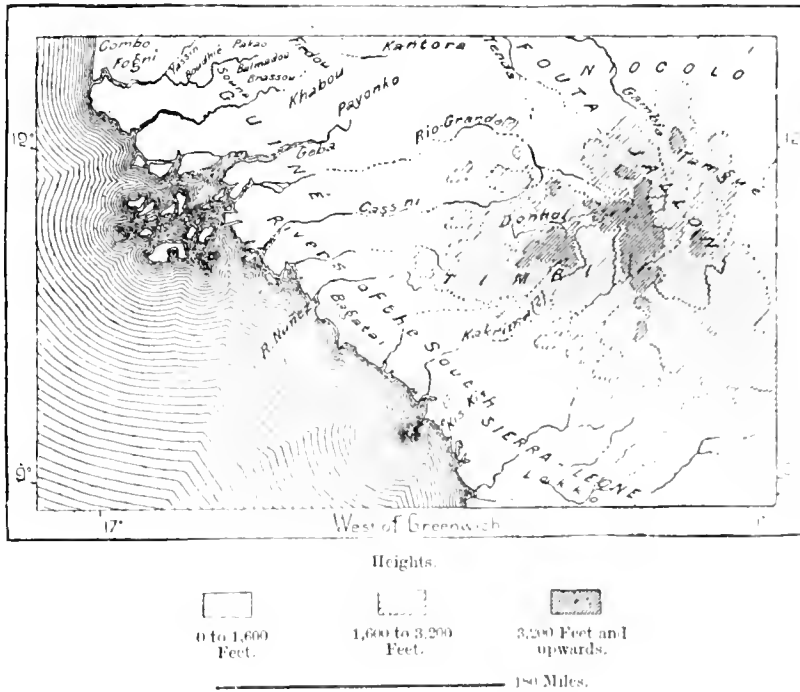
The *Landumans*, also brought under the same rule, occupy both banks of the Nuñez above the estuary. Notwithstanding their stout resistance to the *Fulah* invaders, they would probably have succumbed like so many others, but for the timely intervention of the French. They appear to be closely related to the *Bagas*, resembling them in type, usages and speech. They have hitherto turned a deaf ear to the Mohammedan preachers, although showing great respect for the *Fulah* marabouts, whom they regard as more potent wizards than their own fetish-men. But the more civilized *Nalus* have already embraced the faith of Islam.

Throughout the whole of this region the dominant speech is that of the *Su-Sus*, who occupy both slopes of the hilly country between the *Searcies* and *Rio Pongo*. Some of their tribes even penetrate farther north, intermingling with the *Nalus* and *Landumans*; eastwards they come in contact with the *Fulahs*, towards the west with the *Bagas*, and in many places reach the coast. The *Su-Sus* are akin to the *Mandingans*, and also claim brotherhood with several other West-African peoples, such as the *Sangaras* (*Sankarans*) of the Upper Niger. During the course of long migrations they have become scattered over a vast domain, and it

was a Su-Su tribe that in the thirteenth century seized Timbuktu, whence they were driven westwards a hundred years later. Then it was that they overran the regions between the Upper Niger and the sea, after which the limits of their domain frequently fluctuated during their struggles with the neighbouring peoples. Thus they have ceased to hold the Nuñez basin, while the Fulahs pressing forward from the east, have dispossessed them of many districts in the Futa-Jallon uplands. When the French acquired the political supremacy in the Rio Pongo and Mallicoery basins, most of the Su-Su kings had already become tributary to the Fulah chief of Futa-Jallon. At present these petty states are practically independent, their

Fig. 81.—RIVERS OF THE SOUTH.

Scale 1 : 7,500,000.



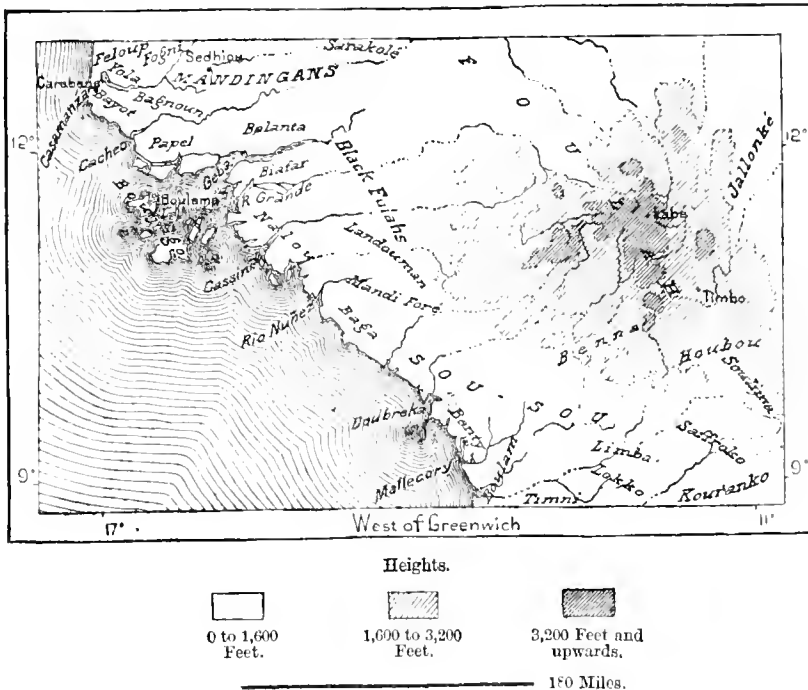
vassalage towards France implying little more than the acceptance of a nominal protectorate.

The Su-Sus are a powerful, broad-shouldered people of distinct Negro type, combined with a certain softness of expression. The women especially are noted for their graceful carriage and great love of finery, paying great attention to the toilette, decking themselves with gold earrings and coral necklaces, and dyeing their teeth, nails, and palms with the red juice obtained by chewing the leaves of a native plant. Although required to work with the slaves in the fields, they are better treated than most of their African sisters, are excellent housewives, and bring up their children with great care. A rare phenomenon in African society are the old maids frequently met in the Su-Su country—women who have declined the husband intended for them, and whose decision in this matter is always respected.

European visitors are struck by the great courtesy shown by the Su-Sus towards each other. At the sight of an aged person bearing a burden, the young man always hastens to relieve him for a part of the way, and strangers casually meeting never fail to inquire after each other's health and welfare. The speech itself, although monotonous, is soft, very pliant, and easily understood, whence its widespread use as the language of general intercourse among all the native populations of the country. It is a Mandingan dialect, marked by the absence of grammatical gender and the use of prefixes, reduced to writing by the missionaries,

Fig. 82.—INHABITANTS OF THE RIVERS OF THE SOUTH.

Scale 1 : 7,500,000.



and already possessing some works on grammar, vocabularies, and translations from the Bible and other Christian writings.

While many Su-Su communities have accepted the doctrines of Islam, others are still pure fetichists. Some again call themselves Mohammedans, and observe the fast of Ramadan, but remain pagans at heart, while others are animated by the same religious zeal as their Fulah neighbours. On the other hand, some of the tribes near the European factories pass for Christians, wearing medals and scapularies, and abstaining from work on the Sabbath. Slavery is still a universal institution, and excursions were formerly made into the interior to capture slaves, who were afterwards sold at an average price of £8 per head. Most of the industries, such as those of the smith, jeweller, and carpenter, are left to the slaves, although some of the free Su-Sus also display great skill at wood and leather work. In a material sense they are rapidly being civilised, and the coast

people now mostly wear European clothes, and build themselves houses with separate compartments and ventilating passages, fitted with foreign bedsteads, strong boxes, and the like.

In this region there are scarcely any European settlers, the dangerous climate obliging most foreigners to depart after transacting their business with the utmost despatch. Hence the influence of the whites is felt rather indirectly, and especially through the Senegalese coloured people and the Wolof traders, by whom the European commercial houses are represented in all the coast villages and far inland.

#### TOPOGRAPHY.

The most remote European station in the Nuñez basin is the pleasant hamlet of *Boké*, perched on the slope of a verdant hill on the left bank, some 50 miles from the mouth of the estuary. Here is a monument to the memory of René Caillié, who started from this place in 1827 on his famous journey to Timbuktu. East of *Kakendi*, as Boké was then called, and on the route to Futa-Jallon, follow the two large villages of *Bambaya* and *Konsotomi*, lying in a delightful and salubrious district, where the orange groves, banana, coffee, and tobacco plantations are watered by perennial sparkling streams. The district, inhabited by friendly Fulahs, offers every prospect of success to European settlers.

*Vakaria*, residence of the Landunan kings, lies a short distance below Boké, near a "sacred" wood, affording a retreat to the "Simons," or wizards, who can change themselves into lions to destroy their enemies. Near Vakaria till recently was to be seen the "gallows of death," where the wretched victim, with broken arms and legs, was left to be slowly engulfed in the waters of the rising tide, unless his sufferings were shortened by a passing shark or crocodile. About twelve miles lower down over against the French station of *Bel-Air*, stands *Kasasocobuli*, another capital, where the Nalu "king of kings" still holds his court. *Victoria*, a factory founded by the English, lies on the right bank, at the point where the tortuous Rio Nuñez merges in the broad marine estuary.

Of the numerous factories on the Rio Pongo the most important is *Baffia*, which is also a custom house and a Roman Catholic missionary station. In the Mallicory basin the only place of any note is Benty, lying in a comparatively healthy district on the left bank of the river. Although Benty is the official residence of the Administrator-General, and occupied by a French garrison, English, introduced by the Sierra-Leone traders, continues to be the current language of intercourse.

On the Tombo headland, facing the Los Archipelago, has recently been founded the station of *Komakri*, which promises to rapidly increase as a port of call for passing steamers. It is also one of the stations of the Atlantic cable connecting Europe with the Gold Coast and the Gaboon. The Los Islands, which the native chiefs have leased to English traders, have in recent times lost much of their commercial importance.

#### SIERRA-LEONE.

Like so many mountains in other parts of the world, one of the crests of the

chain overlooking Freetown presents the vague outlines of a crouching lion. From this faint resemblance the hill, with all the neighbouring coast, the Balombel or Romarong of the natives, may possibly have received from the Portuguese the name of *Sierra-Leão*, whence the present strange hybrid form, *Sierra-Leone*—half Spanish, half Italian. Or is it due to Pedro de Cintra, who on landing here in 1467 met a lion, or more probably a leopard, in the forest, and wished to commemorate the encounter by naming the locality from the king of beasts? Another conjecture refers it to the thunder-claps, which re-echo in the hills when the storm clouds burst on their summit, and when, as Cadamosto writes, the roar of the tempest is heard “forty or fifty miles out at sea” off the coast of “*Serre-Lyonne*.”

As a political designation this name is now applied collectively to all the British possessions between the French territory of South Senegambia and the Negro colony of Liberia, answering very closely to the region known to the early Portuguese navigators as *Mitombo*. The seaboard of this political domain, taken in a straight line, has a length of 210 miles, which is nearly doubled by the thousand indentations of the coast. In some places English jurisdiction extends landwards a distance of 120 miles, while in others it is limited to the coastlands, or even to the shore-line. Absolutely independent communities occupy the immediate vicinity of the seaboard at Krim, near the Liberian frontier. Eastwards the territory reserved for the colonial expansion of England is virtually limited by a convention yielding to France the right of future annexations in the Upper Niger regions. But regarding as already British territory the whole of the Rokelle basin, as well as those of the other streams flowing to the sea, thence to Liberia, its total area may be estimated at about 30,000 square miles, while the actual possessions have an extent of no more than 4,000 square miles, with a population in 1891 of 75,000. Were the whole region peopled in the same proportion, it would contain over 1,500,000 inhabitants, and in any case at least half a million are centred on the seaward slope.

The *Sierra-Leone* seaboard comprises two distinct sections, differing greatly in their conformation. The southern presents a uniform coastline, drawn with almost geometric precision, and diversified by very slight eminences. The coast of Sherbro Island continues that of the mainland as far as Cape St. Ann, terminating in a sharp spit, and for a distance of over a hundred miles the shore-line follows an almost rigidly straight course. This regular beach has no doubt been partly detached from the continent by a marine inlet and a long creek; still the spit indicates the original coastline, which is connected with Cape Roxo between the Cacheo and Casamanza by submerged banks and a chain of reefs and islets, of which the Bissagos archipelago is the chief surviving fragment. North-west of Sherbro the banks extend to a great distance, rendering the *Sierra-Leone* coast as dangerous as that of the Portuguese Guiné, especially in the rainy season, when the horizon is veiled in mist. At some points of their course pilots are obliged to keep sixty miles off the seaboard.

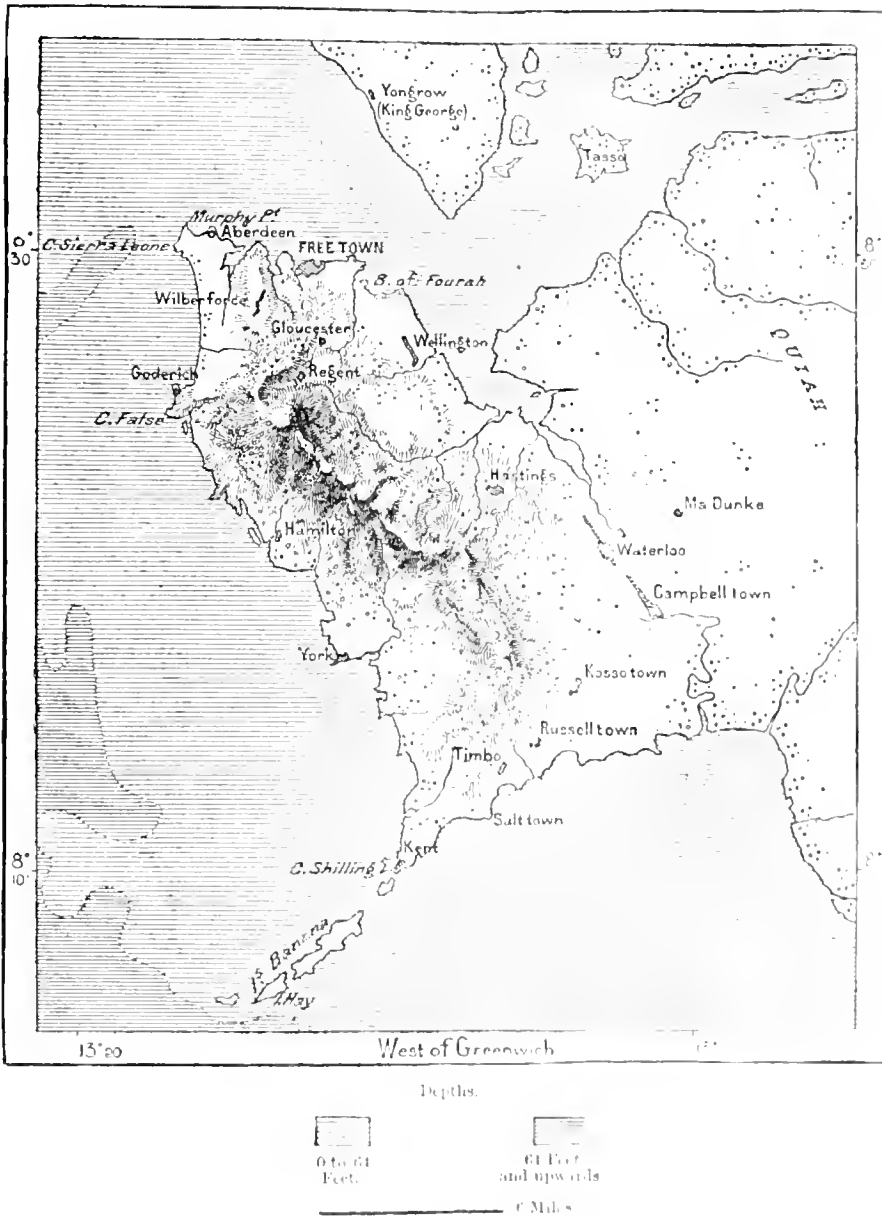
North of Sherbro the coast, carved by marine erosion into gulfs and inlets,



bristles with capes and headlands. Of these promontories the largest is that specially known as Sierra-Leone, at the northern extremity of which stands the capital of the British possessions. During spring tide and heavy rains, this

Fig. 83.—PENINSULA OF SIERRA-LEONE.

Scale 1 : 150,000.



peninsula is said to be completely surrounded by water, the two creeks partly separating it from the mainland being then united in a single channel. Even during the dry season a portage of a few miles is the only obstacle to the complete

circumnavigation of the peninsula, which has an area of 290 square miles, and is mostly occupied with a range of gently rounded hills, culminating in a cloud-capped sugarloaf 2,300 feet high. The peninsular mass terminates northwestwards in Cape Sierra-Leone, and southwards in Cape Shilling, or False Cape, continued seawards by the Banana Islands and a few other islets.

The Sierra-Leone hills are often stated to be of igneous origin, and to the still pent-up gases have been attributed the earthquakes that have here taken place, notably those of the years 1858 and 1862. But this hypothesis is not justified by the nature of the rocks occurring in the neighbourhood of the town, which are sandstones like those of the mainland. According to Matthews, there are numerous symptoms of subsidence on the coast, where some islands in the estuary of the Searcies have been converted into sandbanks, covered by 13 feet of water. The site of a fort erected by the Portuguese at the mouth of the Rio Gallinas would also appear to be now submerged in 40 feet of water, six miles from the shore. But these statements would require to be verified by a careful series of contemporary observations.

Along the Sierra-Leone coast, as everywhere on the Senegambian seaboard, the argillaceous soil overlies a subsoil of coarse and ferruginous sandstone, which is easily cut with a hatchet, but which rapidly hardens in the air, thus forming an excellent building material. On the surface are strewn boulders of blue granite and other crystalline rocks, nearly all rounded and blackened by the action of the sun and atmosphere. The presence of these erratic blocks, brought from distant mountains, seems to suggest that even these equatorial regions may have also had their glacial period, so that the fjord-like form of the coast between Capes Roxo and St. Ann might itself be due to the action of glaciers formerly descending from the Futa-Jallon highlands.

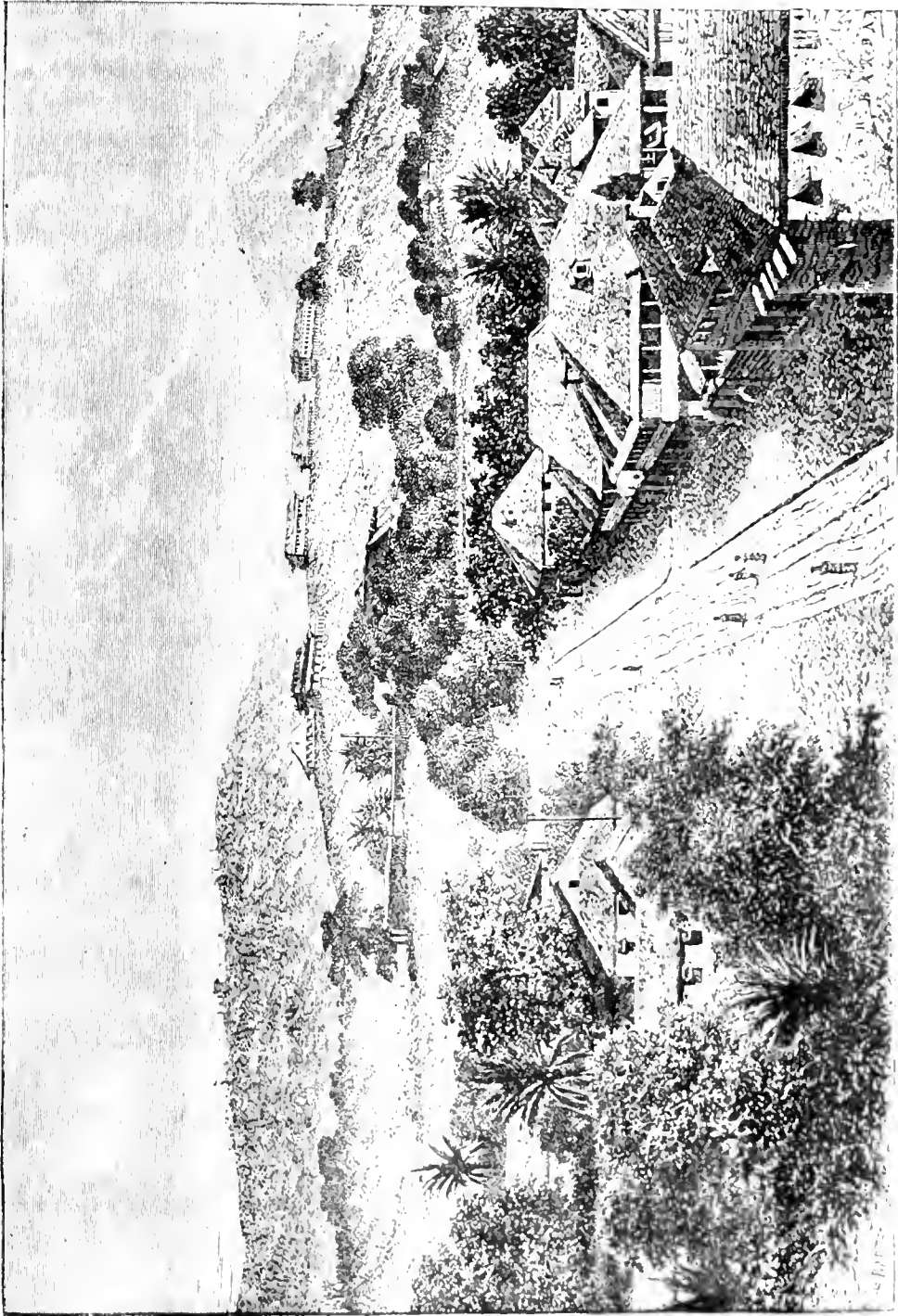
Numerous streams, fed by a copious rainfall, flow from the hilly watershed across the Sierra-Leone territory. The Rokelle, the first large watercourse occurring south of the Searcies, mingles its headstreams with those of the Upper Niger, and after a south-westerly course trends westwards to a broad and winding estuary, forming the eastern branch of the Gulf of Sierra-Leone. South of the Rokelle, the Bansakolo, an equally copious stream, rises within a few miles of the sources of the Niger, and after escaping through deep gorges westwards pursues a still unexplored course to the coast, either falling into Yawry Bay as the Kamaranka, or more probably merging as the Bagran or Barguru in a funnel-shaped estuary to the east of Sherbro Island.

#### CLIMATE.

Although Freetown, capital of the British possessions, is 270 miles nearer the equator than Sedhiu on the Casamanza, its mean temperature is not more elevated, and is even rather lower than that of Boké, on the Rio Nuñez. This is due to its position on the coast, where it is completely exposed to the marine breezes. The climate is extremely equable, with no alternations of seasons, except such as are due to the succession of dry and rainy periods, the glass varying scarcely more than seven

degrees, from  $75^{\circ}$  F. in August, to  $82^{\circ}$  in April, with a mean of about  $78^{\circ}$  F. at

Fig. 84.—FREETOWN.



Freetown. The sea-breezes prevail along the coast during the hottest part of the  
AFRICA II.

day ; but the whole coast lies beyond the influence of the regular trade winds, and Freetown lies altogether in the zone of monsoons, calms, and variable winds. The harmattan from the Sahara prevails for a few days in December and January, bringing with it the impalpable dust of the desert.

The rainfall is heavier on the Sierra-Leone coast than in any other part of West Africa, although varying to a surprising extent from year to year, falling, for instance, from 320 inches in 1829 to less than 40 in 1858. A mean of nine years gives for Freetown about 134 inches, while exceptional downpours have been recorded of 4, or even 8, inches in the twenty-four hours. During these heavy rains, hail not unfrequently falls on the tops of the mountains. The wet season begins generally early in May, or a month sooner than in Senegal, and is usually ushered in with a few local cyclones, caused by the clash of opposing winds.

Despite its relatively moderate temperature, the climate of Sierra-Leone is one of the most deadly in the world, and of the whole region the capital is the most dangerous as a residence for Europeans. In the neighbourhood are some still undrained marshy tracts, while muddy banks are left exposed at every tide. The poisonous exhalations rising from these places are confined as in a cauldron by the vast amphitheatre of hills encircling the bay. Even on the slopes the nature of the soil contributes to the insalubrity of the climate during the rainy season. The water absorbed by the ferruginous sandstones is rapidly evaporated, filling the atmosphere with heavy dank vapours, like those of a hothouse for tropical plants. On arriving in the bay the European admires the picturesque form of the hills, the exuberant vegetation, the lovely shores of the gulf, ramifying in creeks and narrows ; but he cannot shake off the ominous impression caused by the expression, "White man's grave," commonly applied to the country ; and he also remembers that the cruisers employed to suppress the slave-trade in these waters were known as the "Coffin Squadron."

Epidemics of yellow fever are frequent, generally sweeping off a third or even a half of the whites unable to escape in time, or compelled by their duties to remain in the country. Some medical men even assert that this scourge is endemic in Sierra-Leone, and that the peninsula is the hotbed of the epidemics that at times ravage the Senegambian regions. The mortality of the English officers stationed at Freetown rises occasionally to one-half, and in 1881 it exceeded a third for all Europeans, although most of them occupy well-ventilated houses on the slope or crest of the hills, and seldom expose themselves to the pestiferous miasmas of the early morning. The black troops constituting the colonial military force suffer far more than the European garrisons, and the vital statistics for the whole population show a continual increase of mortality over the birth-rate, amounting to 1,248 for the five years ending in 1875. Animals introduced from the north, as well as horses imported from the interior of the continent, perish rapidly. European dogs take the fever like their masters, while animals which resist undergo great transformations. All lambs are born with black heads, which may perhaps be a return to a primitive type ; dogs change their coats, lengthen their ears, and cease to bark, while cats turn grey and acquire longer jaws and legs.

## INHABITANTS.

The dominant race in the interior of Sierra-Leone is the powerful Timni (Timani, Temné) nation, numbering about two hundred thousand persons, divided into several tribes and into as many "kingdoms" as there are villages. It was a Timni chief who sold to the English the Sierra-Leone peninsula; but the old owners of the land did not entirely acquiesce in the transaction, and during the early period of the occupation the British were frequently attacked by the natives. Defeated on the continent, and driven in their turn from their palisaded villages, they have lost heart although not yet completely subdued. So recently as 1885 a village near Waterloo, some 25 miles south-east of Freetown, was surprised, some men killed, and some women and children carried away into captivity.

The Timni are centred chiefly in the plains between the Rokelle and Little Searcie rivers. They are a fine vigorous race with pleasant features and proud bearing, at least in the more remote districts, where they have not yet been brought under the "civilising" influences of the capital. Industrious tillers of the soil, they raise enough rice, cocoa-nuts, and other produce, to supply the wants of Freetown.

The Timni language, widespread as the common medium of intercourse in the Rokelle basin, has been carefully studied, especially by Schlencker, who has published a good grammar and complete dictionary. Collections have also been made of the national myths, proverbs, and tales, and several religious works have been translated into this idiom, which resembles the Su-Su, and still more closely the Landuman dialect. The Timni have hitherto resisted Mohammedan and Christian influences, although firm believers in the efficacy of crosses and Moslem amulets. The tribal government is monarchical, but the regal office may at times prove fatal to candidates for the post. In some places the future subjects of the king have the right of beating him on the eve of the election, and this is occasionally done so energetically that he does not always survive the infliction.

The real power belongs to the so-called *purra*, or *porro*, an association which judges both ruler and ruled, and to which even slaves are admitted on terms of perfect equality. It is a sort of freemasonry analogous to the *huli* of the Su-Sus, and to similar secret societies widely diffused throughout West Africa, all with their special language, tattoo marks, and symbols, forming a powerful religious and political state within the state. But amongst the Timni tribe they are most potent for good or evil. When their mandates are issued all wars and civil strife must cease, a general truce is established, and bloodshed stopped, offending communities being punished by bands of armed men in masks. Strangers cannot enter the country unless escorted by a member of the guild, who is recognised by pass-words, symbolic gestures, and the like. Their secret rites are celebrated at night in the depths of the forest, all intruders being put to death or sold as slaves.

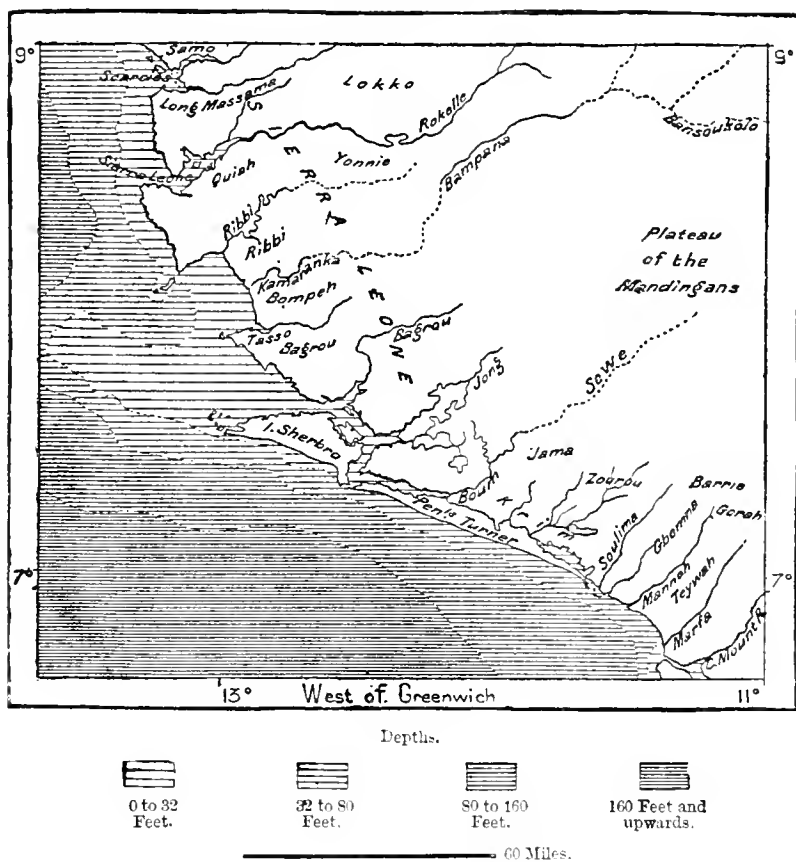
In these societies the wizards command great influence, but at times fall victims to their mutual jealousy. Crocodiles and rapacious beasts are also regarded as

magicians, and when they carry off a human being the village of the victim is given to the flames in order to avert the evil omen. But when a member of the tribe dies a natural death a solemn inquest is held over his remains, his supposed murderer being killed in his turn, or else enslaved with all his family.

Other close neighbours of the English settlement of Freetown are the Bulloms or Bullams, who have been broken by the pressure of the more powerful Timni into two distinct fragments, the northern Bulloms, a small tribe occupying the coast between the Mallecory River and the Sierra-Leone estuary, and the Mampuas,

Fig. 85.—TERRITORY OF THE WESTERN MANDINGANS IN SIERRA-LEONE.

Scale 1 : 3,000,000.



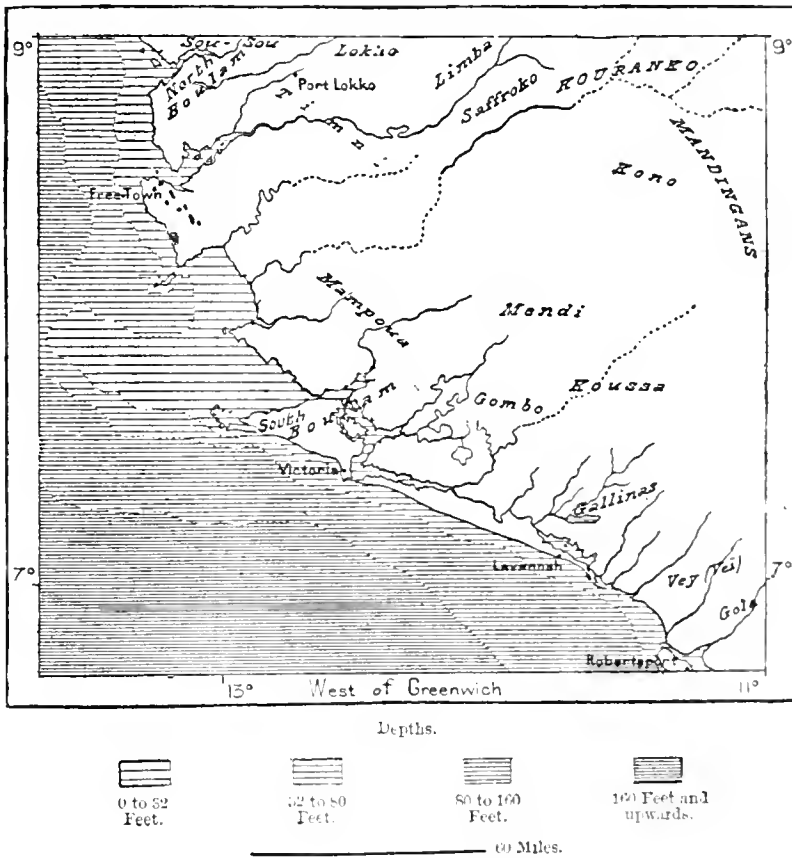
or Southern Bulloms, of Sherbro Island and the neighbouring district. The Bullom language, much affected by foreign elements, belongs to the same stock as the Timni. The forest districts east of the Mampuas, near the Liberian frontier, are held by the Mendis (Mendés), who, however, reject this name as implying the idea of slavery, and call themselves Kossa (Kossu), that is, according to Winwood Read, "Wild Boars." The Mendis, who speak a distinct language, are a warlike people, by whom, either alone or in alliance with the English, the Timni have often been defeated.

North-east of the Timni the cone-shaped huts of the Limbas occupy the crests of all the hills about the middle course of the Little Searcie. The Limbas are a powerful tribe, who often close the trade route through their territory. They show great respect for their dead, burying them in an upright position, as if about to resume the journey through life in the after-world.

The communications between Sierra-Leone and the Upper Niger are also occasionally endangered by the Saffrokos and Konos, who dwell more to the south in the hilly regions, about the sources of the coast streams. Still more warlike

Fig. 86.—INHABITANTS OF SIERRA-LEONE.

Scale 1 : 3,000,000.



are the Gallinas of the Gallina and Manna rivers on the Liberian frontier, who till recently barred all European access to the interior. Even since the suppression of the slave-trade they have continued their hereditary feuds with their Kossu neighbours on the north and the Vei people on the south-east, and have even waged war against the "American" Negroes of Liberia. In 1885 the queen of one of their most powerful tribes became the ally of the English, who through her interposition are now the supreme masters of the whole country. These Gallinas are in some respects well qualified to cultivate the arts of peace as well as of war.

They are noted especially for their æsthetic taste, and amongst them are many skilful goldsmiths and woodcarvers endowed with considerable original talent. Of all the coast peoples they have been most influenced by Islam, and are at present in the transitional state between Animism and Mohammedanism. They claim to be of Eastern origin, and on the seaboard form the van of the Mandingan tribes pressing forward from the interior.

As in Senegambia, this general pressure of the inland on the coast peoples is continually going on. In the north-east the Hubus (Fulahs) are thus gradually encroaching on the inhabitants of the Searcies rivers; in the east the Mandingan and Sarakolé traders are in the same way gaining on their neighbours, and introducing them to a more advanced civilisation. Since the middle of this century the Hubus here constituted a state independent of the Timbo chief, escaping subjection by migrating from the Upper Bafing basin south-westwards, to the hilly district about the sources of the Searcies. But this movement has given rise to incessant conflicts with the surrounding tribes, the cause of Islam still serving as the cloak for incursions and pillage. Their very name is derived from the burden of their warlike songs, *Hu, bu*: "We love the prophet, united in his love!"

Of the indigenous tribes several have remained pagans, and these differ little in their social state from the neighbouring Limbas, Saffrokos, and Konos. Such are the Kurankos, who hold the valleys stretching east of the Timni to and beyond the sources of the Niger. Here they are grouped in oligarchic communities, recognising a chief, but governing themselves by a council of elders, who settle disputes according to established usage, and who determine an equitable award between crime and punishment, wrong and its retribution. The vendetta still prevails, the victim's family claiming blood for blood, but the murderer of a slave escaping with slavery unless ransomed by payment of the full value.

The Solimas, akin to the Su-Sus and Senegalese Jallonkés, are more cultured than the Kurankos, although like them still despised by the Mandingans and Hubus as foes of Islam. They dwell between the Hubus and Kurankos in the picturesque region of hill and dale about the sources of the Searcies, and thence to the Joliba. Like their neighbours, they speak a Mandingan idiom, and also resemble the Gambian Mandingans in their love of music. They wage incessant war against the Fulahs, decorating the great battle-drum round about with the beards of the slain, each inscribed with the name of its former bearer. Nevertheless the pagan Solimas are amongst the most polished peoples of West Africa. Comfort is widely diffused, their fields are carefully tilled, their towns well ordered, and their minute code of etiquette rigorously observed by all. Strangers are always welcome amongst them, and Laing, Reade, Zweifel and Moustier have spoken in high terms of the generous hospitality accorded to them by these pagan highlanders. But there is a dark side to the picture, and Reade was informed that at his accession the new king gives his youngest daughter to the sacred crocodiles, thereby bearing witness that for his people's sake no sacrifice will be held too great.

Mandingan traders are numerous in Freetown, and thanks to them, Islam is



daily gaining ground in this Negro town, founded by the English and Christian missionaries. In 1886 the Moslem community already numbered three thousand adherents, who were wealthy enough to erect a sumptuous mosque in the place. Here are represented all the races of West Africa, and a hundred and fifty languages were current in this town, which the English cruisers had made the general depôt of the captives rescued from the "slavers." After having long been a hotbed of the traffic in human flesh, Sierra-Leone thus became an asylum for the fugitives, a land of liberty for the emancipated Negroes. The English company who in 1713 had obtained the privilege of furnishing the Spanish-American possessions with slaves, transported in exceptional years as many as sixty thousand, the product of wars in which at least twice as many victims perished.

But it was also at Sierra-Leone that in 1787 Granville Sharp and Smeathman acquired from the Timni chiefs a strip of territory to be converted into a land of freedom. A first group of black colonists was here established, and at the close of the American War of Independence these were joined by other refugees from Nova Scotia. Most of them perished of hunger and misery, but were replaced by others from Canada and Jamaica, and after the official abolition of the slave-trade in 1807, the British Government replaced the Sierra-Leone Company as masters of the peninsula, using it not only as a home for rescued freemen, but also as a convict station for mutineers from its other tropical possessions.

This intermingling of peoples of diverse speech and origin has produced a hybrid population unlike any other on the west coast, where they bear a bad name for greed, hypocrisy, and degraded morals. Nevertheless, the Sierra-Leonese are an industrious, enterprising people, and their blacksmiths, carpenters, and other artisans are highly valued in all the seaboard towns. Some even profess to teach, if not English, at least an English jargon to all the coast tribes, notably those of the Su-Sus of the Pongo River. Descendants of the freemen are met as far inland as the Niger basin, where they are generally known as *potu*, or "whites," not merely because many are half-castes, but more especially because they represent a higher culture, and by their very presence recall such events as the suppression of the slave-trade, and the emancipation of the Negro. Some tribes have even been induced by their example to abolish servitude, and in the Searcies basin a petty state has been founded, consisting entirely of fugitive slaves, whose courage and free bearing have secured for them the respect of their neighbours.

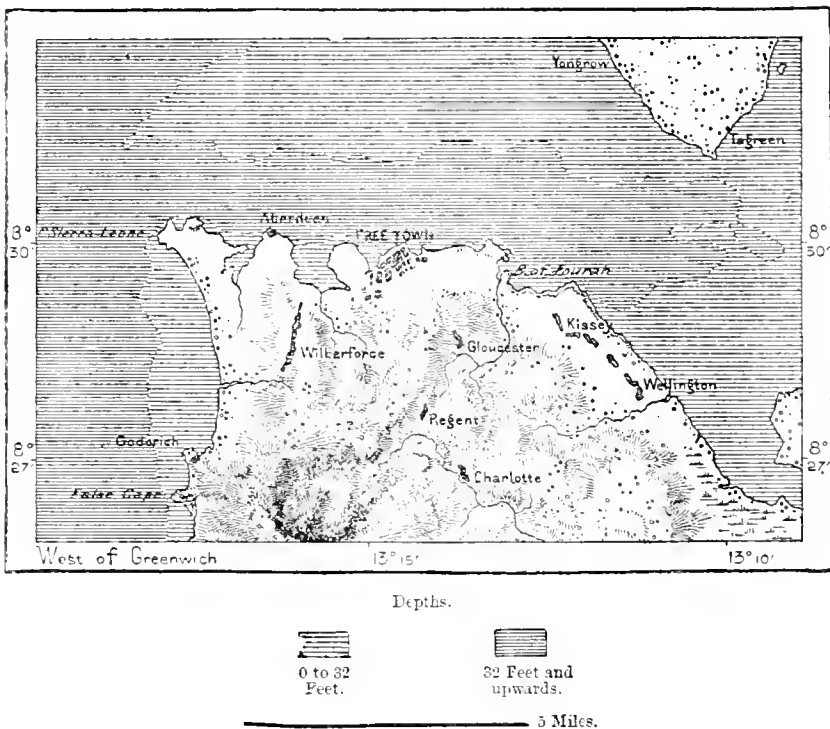
The diverse origin of the Freetown Negroes has compelled them to adopt English as the common medium of intercourse, but in their mouths this language has been so strangely transformed that no European Englishman would understand it at first, although consisting of but a very limited number of words. The Moravian Brothers had translated the Testament into this jargon; but the style and words necessarily used by the translators seemed so whimsical that, through a feeling of reverence for the sacred text, the volume had to be destroyed. It bore the name of "Da Njoe Testament, translated into the Negro-English language by the Missionaries of the Unitas Fratrum," British and Foreign Bible Society, London, 1829.

The emancipated Sierra-Leonese are supposed to be all Protestants of various denominations; nevertheless, many traces of the old heathendom survive amongst them, and some sects, mostly from the Slave Coast, still worship fire, thunder and lightning. In the "colony" nearly all children attend school, the young men continuing their studies in the secondary establishments, and in the Furah Bay College attached to the University of Durham.

At the census of 1891 the white population numbered only two hundred and twenty-four, and at times of sickness it often falls below a hundred. The Italian "mercanti" resist the climate best, and almost every steamer brings a few of these peddlars, mostly from Naples, who bravely tramp with their packs of glass beads

Fig. 87.—FREETOWN.

Scale 1 : 195 000.



and coral from village to village, living like the natives, and enduring hardships and privations such as would kill any European unaccustomed to such an existence. Thanks to these intrepid dealers, the retail trade has acquired a certain importance, while wholesale transactions have declined since Freetown has ceased to be the capital of all the English West African possessions. The policy followed by the Government towards the tribal chiefs has also proved ruinous to the trade of the country. Few troops were ever sent inland before 1890, since when several expeditions have had to be made, both to support the Commission appointed to determine the Anglo-French frontier, which was finally settled in 1896, and also to put down revolts, such as that caused by the imposition of the hut-tax in 1898. This out-

break was attended with much bloodshed and destruction of property, but was at

Fig. 88.—SAWYIT BAY, NEAR FREETOWN.



last suppressed in the June of that year, and since then law and order have been firmly established throughout the colony.

## TOPOGRAPHY.

The roadstead of *Freetown*, sheltered off Cape Sierra-Leone by the imposing Carpenter's Rock, presents a delightful prospect whenever the encircling hills are free from the clouds that enshroud them for most of the year. The primeval forest, largely cleared by fire, is disposed in clusters of majestic trees with intervening grassy or bushy spaces. On a neighbouring headland rises a clump of gigantic baobabs, forming a conspicuous landmark for vessels bound for the roadstead; charming dells open between the softly rounded hills, above whose crests are seen the summit of the "Lion Mountain." Houses in the European style are scattered along the beach, Freetown appearing in the background between the Furah and Krooboy inlets.

*Granville*, the first capital of the Negro colony, had been founded in a neighbouring plain, but after its destruction by a French squadron in 1794 it was never rebuilt. Unfortunately, choice was afterwards made of the unhealthy bay of Freetown, instead of some site more removed from the marshes and more exposed to the sea breezes. However, the higher parts, even of Freetown, are relatively salubrious, and the yellow fever has often visited the lower quarters without attacking the barracks, erected on a hill 400 feet high. Freetown, which covers a space of four square miles, contains some fine buildings, schools, churches, and Government offices. But some of the streets are in ruins, and many dilapidated structures are overgrown with grass or shrubs. Freetown is the chief West African market for wild animals, and here the agents of the European menageries come to purchase snakes, carnivora, gorillas, and chimpanzees.

Besides this city of some thirty thousand inhabitants, there are no towns properly so called in the British possessions, although the peninsula is dotted over with villages bearing English names, such as *Aberdeen*, *Wilberforce*, *Wellington*, *Regent*, *York*, *Hastings*, and *Waterloo*. In the interior *Port Lokko* has acquired some importance from its position on the Lokko River, which flows to the Rokelle estuary. *Kambia*, lying farther north, is the chief agricultural centre in the Great Searcie basin.

*Sumata*, near the source of the same river, and beyond the British frontier, is a rallying-point for caravans proceeding to Futa-Jallon. On the Kabba, a northern affluent of the Little Searcie, lies the busy market of *Samaya*, capital of the Tambakka, or Tambuchi (Su-Su) tribe. In the Limba territory the chief places are *Bumba* and *Bumbadi* (Big and Little Bumba). *Kaballa* is the residence of the most powerful Kuranko potentate, and *Fuleba*, also in the Little Searcie basin, is the capital of the Solima nation. It is a prosperous place near the depression leading to the Upper Niger, and, according to Blyden, marks the most convenient site for the construction of a railway from Sierra-Leone to the Joliba.

Towards the Liberian frontier well-known places for holding "palavers" are *Baharma* and *Bandasuma*, capital of the queen of the Barri tribe in the Sulima basin.

## ADMINISTRATION.

The colony of Sierra-Leone is administered by a governor, assisted by executive and legislative councils, and paid from the colonial revenues, which are derived chiefly from customs, and exceeded £104,000 in 1896.

The local forces comprise 800 men of the West India Regiment, besides engineers and artillery, and a constabulary force of 570 men, chiefly for frontier defence. This service is entrusted mainly to the Haussas, the Egbas, and some other natives recruited in the Lower Niger and Slave Coast districts. But all are commanded by British officers, who, after a period of eighteen months' service in this unhealthy region, are entitled to a year's leave of absence on full pay. Freetown, which had a population of over 30,000 in 1898, is the headquarters of the British forces in West Africa.

The prospects of Sierra-Leone, like those of British Gambia, are not brilliant. Owing to the apathy of the Home Government in the face of the aggressive policy for some years pursued by the French in Senegambia, this old Crown Colony has lost its natural hinterland towards the Niger basin. The inland trade routes are already closed beyond the narrow frontiers laid down by the Agreement of 1896, and little now remains for England except the costly and onerous duty of maintaining order amongst a number of restless savage tribes, without any hope of developing commercial relations sufficient to pay expenses. In 1896 the expenditure exceeded the revenue by £12,000, and both exports and imports fell below £500,000.





## CHAPTER VI.

### UPPER GUINEA.

#### LIBERIA.



THE "Land of Liberty" has not yet fulfilled all the promises made on its behalf by its founders. Hence, by an inevitable reaction, most travellers casually touching at some port of the republic allow themselves to indulge in severe censures, too often inspired by racial prejudice. But surely the very constitution itself of a society consisting exclusively of the children of slaves or freedmen, developed in a region where the slavers were wont to collect their gangs of captives, must be regarded as an event of supreme importance. In any case, far from being a weaker or worse organised state than the neighbouring European "colonies," Liberia has at least the advantage of being a colony in the true sense of the word. Its immigrant founders were not mere passing travellers, but here took up their permanent abode, and here their issue have continued the work begun by them. In speech, usages, and institutions they even represent European culture itself. Yet they are blacks like the natives, and, although too often keeping aloof from them in the fatal character of "civilised aristocrats," they have none the less, in the long run, exercised considerable influence on the tribes in whose domain they have taken up their abode. With their neighbours they have mostly dwelt in peace, and less by force of arms than by friendly treaties they have succeeded in acquiring the political supremacy over the extensive region at the western angle of the continent. Still the Liberians have also had their wars with the surrounding wild tribes, whom they have reduced by barbarous measures, cutting down their palm-groves and wasting their tilled lands.

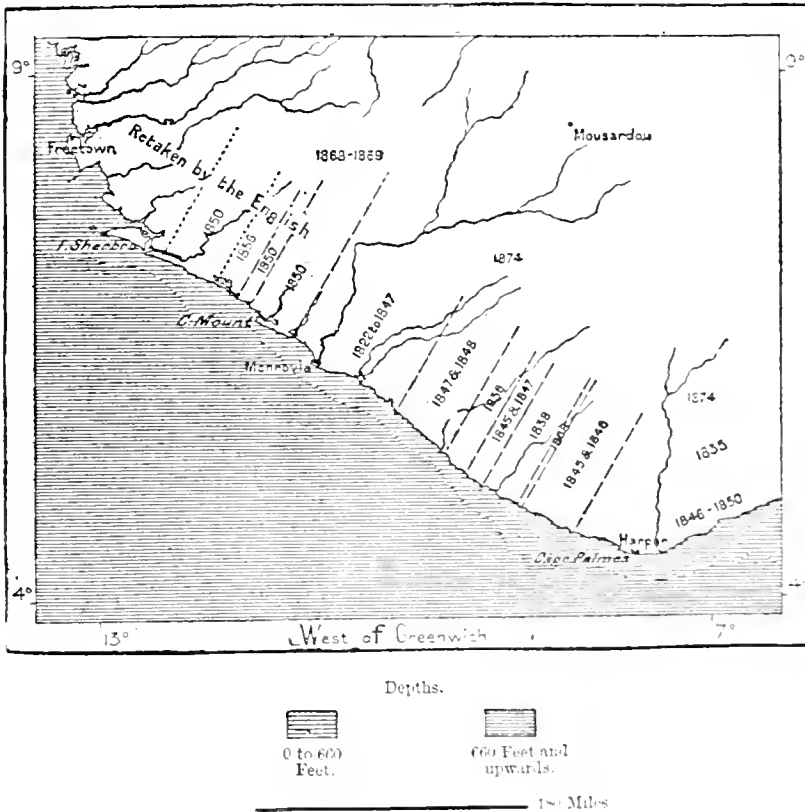
In 1815 some forty American Negroes were brought over to Sierra-Leone by a wealthy fellow-countryman of Massachusetts, and next year an American society was founded for settling emancipated slaves on the African seaboard, whence their ancestors had been carried off. But the first expedition under its auspices did not take place till 1820. It was directed to Furah Bay in the Sierra-Leone estuary; but having been badly received by the English, the settlement was removed in 1822 to a bay commanded by Cape Mensurado, 210 miles south-east of Freetown.

After the first difficulties were surmounted the colony gradually expanded, strip after strip of territory being added year after year, and parcelled out in the American fashion in geometrical parallel lines at right angles with the coast.

But the settlement did not yet constitute an independent state, and continued to be administered by delegates of the American society, whence arose frequent diplomatic difficulties, the English traders on the coast refusing to pay customs to a private company. At last the society surrendered its claims, and the revolutionary year, 1848, saw the birth of the new Negro Republic on African soil.

Fig. 89.—TERRITORIES ANNEXED, TO THE COLONY OF MONROVIA.

Scale 1 : 5,000,000

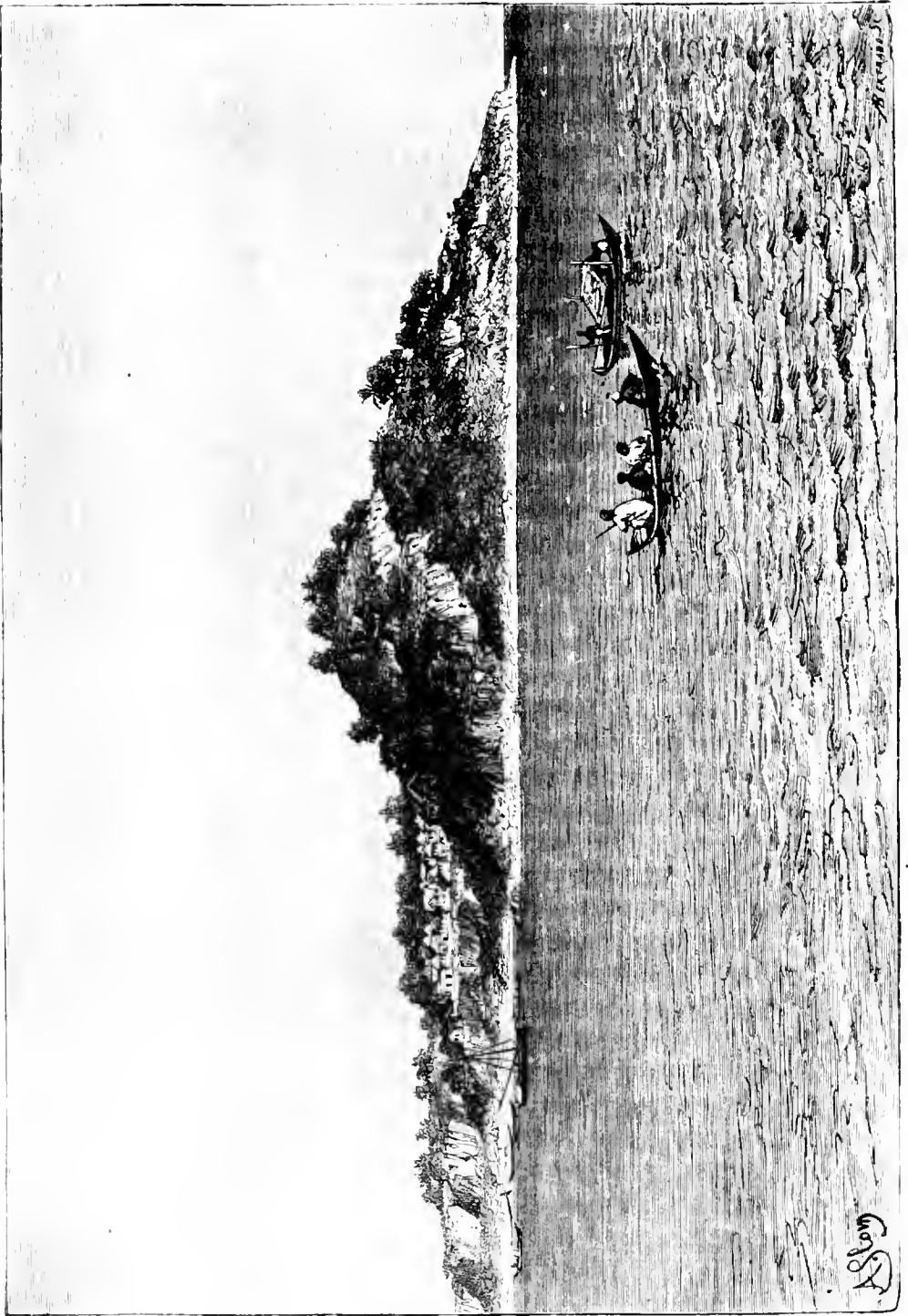


Most of the powers hastened to recognise the independence of Liberia, which at that time comprised about eight thousand "citizens," and three hundred and fifty thousand natives. In 1897 the first had increased to twenty thousand, while all the other inhabitants of the vassal states were approximately estimated at one million and fifty thousand: but from this number must be deducted the people of the coast between Manna Point, near Sherbro Island, and the river Manna near Cape Mount, which was definitely annexed to Sierra-Leone in 1883.

At present the area of colonisation covers an extent of 15,000 square miles. But the State would be four times more extensive if be included all the territories

officially protected in virtue of treaties concluded with the native populations, some of which even lie to the east of the hills in the Niger basin.

Fig. 90.—MONTROVIA AND CAPE MESURADO.



As delimited by the Franco-Liberian treaty of 1894 the republic forms nearly a



quadrilateral, stretching 380 miles along the coast, with an average breadth of 150 miles. The seaboard is intersected by numerous streams mostly with narrow basins, and flowing in parallel beds from north-east to south-west, according to the normal slope of the land. At high water and during the periodical floods nearly all the low country between the first line of hills in the interior and the coast dunes is submerged. The Saint Paul, largest of the Liberian rivers, rises nearly 200 miles from the sea, north of the Foma hills and south of the Loma range, which separates its basin from that of the Niger. It is navigable for about 20 miles by vessels drawing 10 feet, and even above the rapids the upper reaches are in many places deep enough for river craft. But a dangerous bar at its mouth obliges all seagoing vessels to ride at anchor in Monrovia Bay. The Saint Paul is joined in a common delta by the Mensurado, and farther east two other rivers, the Queah and the Junk, converge on the coast. Other considerable streams are the Cestos, Sangwin (Sanguin), Sinu, and Cavally (Cavalla), the last so named by the Portuguese because it is within a ride ("cavalcade") of Cape Palmas. Beyond this point follows the San-Pedro, forming the eastern frontier within the limits of the Ivory Coast on the Gulf of Guinea. Several of these streams, notably the Cavally, are accessible to boats for 70 miles from the coast, which is here endangered by numerous sandbanks. One steamship company alone lost six vessels in ten years between Sierra-Leone and Cape Palmas.

Most of the Liberian rivers are separated from each other by intervening ridges or spurs projecting from the Mandingan plateau. But most of the seaboard is low, either fringed with lagoons or carved by the waves into small red and white cliffs, with here and there a few conspicuous headlands. Such is Cape Mount, a wooded almost insular bluff, whose highest crest rises 1,065 feet above sea-level. Cape Mensurado (Montserrado), although less elevated (280 feet), is a more important object for mariners, as it projects farther seaward and marks the entrance to the port of Monrovia, capital of the republic. In the interior is visible a chain of hills culminating in the Table Mountain, 1,100 feet high. North of Cape Palmas, at the angle of the continent between the Atlantic and Gulf of Guinea, another hilly mass, consisting of red sandstone, rises to a height of 1,094 feet. In several places, and especially to the east of Monrovia, eruptive rocks have cropped out, but the prevailing formation appears to be a reddish clay overlain by a ferruginous sandstone like that of Sierra-Leone and Senegambia.

The Mandingan plateau when cleared of its natural growth of tall grasses is extremely fertile, and according to Anderson, potatoes here grow to a size of eight or ten pounds. On the escarpments of this plateau are strewn some granite boulders, several of which are scored with striae, another indication that these equatorial regions had also their glacial period.

#### CLIMATE.

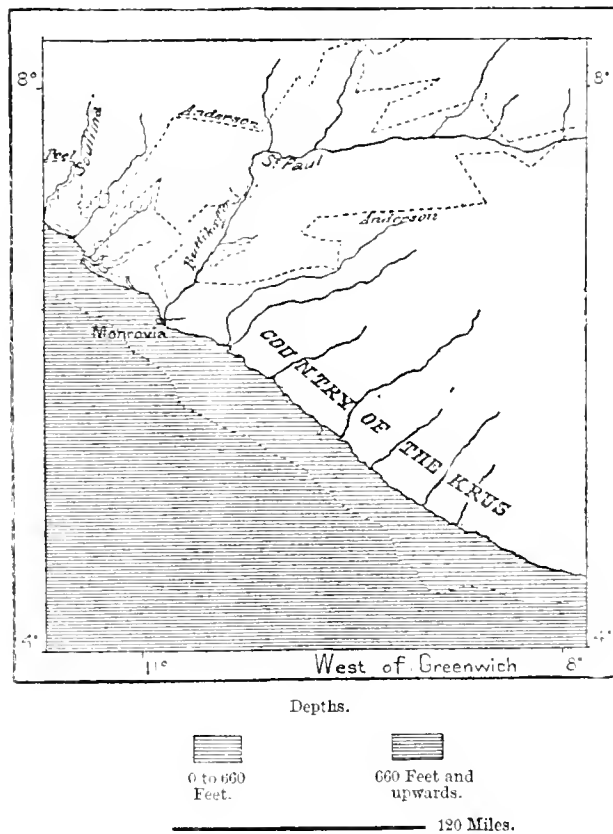
The seasons are less regular in Liberia than on the more northern coastlands, which must doubtless be attributed to the change in the direction of the shore-line.

facing in one direction westwards, in another southwards. But the general distribution of the seasons is the same as in Senegambia, the year being divided into a dry period lasting from December to the end of April, and a wet, which is again divided into a period of heavy and one of slight rains. The torrential downpours last from the beginning of May to the middle of August, when an interval of fine weather is followed towards the end of September by fresh rains accompanied by sudden storms.

Notwithstanding its equatorial position, the mean annual temperature of Monrovia is not more than  $81^{\circ}$  F., the daily variations lying between  $77^{\circ}$  and  $86^{\circ}$ ; in other words, its climate corresponds to that of hot summers in temperate

Fig. 91.—CHIEF ROUTES OF EXPLORERS IN LIBERIA.

Scale 1 : 6,000,000.



zones. The greatest extremes occur during the dry season, when the intense heat of the day is followed by comparatively cool nights, caused by the harmattan blowing from the uplands of the interior. The harmattan is mostly accompanied by dense fogs, which are generally dissipated during the morning, but which at times last, like those of England, all day long. Normally the atmospheric currents succeed each other with the regularity of clockwork. The land-breeze prevails in



KROOMEN



the morning, following a mean direction from north to south, and is replaced in the afternoon by sea breezes from the west.

The Liberian climate is considered highly dangerous for immigrants, but still less so than that of Sierra-Leone. The whites have a settled belief that a residence of over three years would be fatal to Europeans, who especially dread the dry season and marsh fever. Most maladies cause a certain decomposition of the blood, which is expressed by the local saying that the prick of a needle first draws a drop of water and then one of blood. Even Negroes from the United States are liable to marsh fever, from which the aborigines are exempt.

#### FLORA OF LIBERIA.

The Liberian flora, coming within the Sudanese zone, differs little from that of Sierra-Leone, which it rivals in the wealth of its vegetation and the extent and beauty of its woodlands. Even the dunes are clothed with plants, such as the convolvulus with its flowery wreaths, and the dwarf palm (*hyphane*) expanding its fan-shaped foliage within a few feet of the ground. The cocoa-nut, introduced at an unknown date, here found a congenial soil, and has run wild not only on the coast but also along the riverain tracts. Few of the uncultivated plants yield edible fruits, although Liberia is the home of a variety of the coffee plant which grows spontaneously in the forests, and which has recently acquired great economic importance for the revival of exhausted plantations in other tropical regions. The *Lemileia vastatrix*, which has committed such havoc in Ceylon, India, Java, and Brazil, has compelled growers to replace the old Abyssinian and Arab stock by the Liberian plant, at least on plantations at a corresponding altitude, this variety generally occupying a lower zone than that of the common species. Its berry also is equally fragrant, when subjected to suitable treatment. It is not, however, a shrub like that of Arabia, but a tree, which in the primeval West African forests occasionally attains a height of from 40 to 50 feet. More precocious and productive than the ordinary plant, it resists the attacks of the *Lemileia vastatrix*, and flourishes in the vertical zone comprised between sea-level and 2,800 or 3,000 feet of altitude, thriving best in an argillaceous and slightly silicious soil.

Liberia also exports palm-oil, caoutchouc, and the camwood (*baphia Lamatorghon*) employed especially in France for dyeing textiles. The native flora also includes a "fever tree," whose foliage appears to possess the efficacy of quinquina. Few ground-nuts are now exported, owing to the depredations of rodents and other animals, but the lower course of the St. Paul is already fringed with cocoa-nuts and sugar-cane. But the so-called "pepper," which gives its name to the "Grain Coast," is now entirely neglected by exporters. It is a species of cardamom (*amomum granum paradisi*), which in the sixteenth century was used for adding fire to alcoholic drinks, and which is still employed by the natives as a febrifuge and for perfuming the dead.

## FAUNA.

The slight differences that exist between the Liberian and neighbouring faunas are explained by the nature of the soil and distribution of the woodlands. On the Mandingan plateau the savannahs are roamed over by multitudes of antelopes, buffaloes, and elephants, while domestic animals—horse, ox, goat, and sheep—thrive well in the settled districts. But in the moist low-lying valleys there are no flocks or herds, and imported horses rapidly yield to the climate. The large variety of the hippopotamus is rare, and still rarer the smaller species, as well as the two varieties of the crocodile. Nor are rapacious animals very numerous in the forests, where no lions or hyænas are met, while the leopards occasionally seen prowling about the enclosures are timid creatures, of whom the natives have no dread. The most formidable beast is a buffalo, the *bush-cow* of the Liberians. There are also some chimpanzees, or “baboons,” as they are called, which are greatly respected and never eaten, because of their resemblance to man. The woods are inhabited by several other species of monkeys, and the clearings by various kinds of antelopes, including the *spinigera*, smallest of the gazelle family. Insects swarm in such numbers that Liberia has been called the home of the ant, and whole quarters of Monrovia, undermined by termites, have had to be rebuilt.

## INHABITANTS.

The plateaux and uplands of the interior are occupied by the powerful Mandingan nation, who have advanced from the east, and who here as elsewhere in West Africa exercise great influence, thanks to their superior civilisation. At the foot of the escarpments some fortified valleys in the St. Paul basin belong to the Pessi and Bussi, warlike tribes distinguished by their extremely courteous manners. Both have their distinct speech and system of tattooing, and, according to Winwood Reade, cannibal feasts were held as recently as 1870. The Bussi are good husbandmen, raising large quantities of cotton for export.

A more powerful and numerous people are the Golas, or Guras, who dwell chiefly along the western affluents of the St. Paul and the neighbouring rivers. They are fierce warriors, who are said to have nearly exterminated the Dch or Devoi tribe, some of whom are still met about the plantations on the coast.

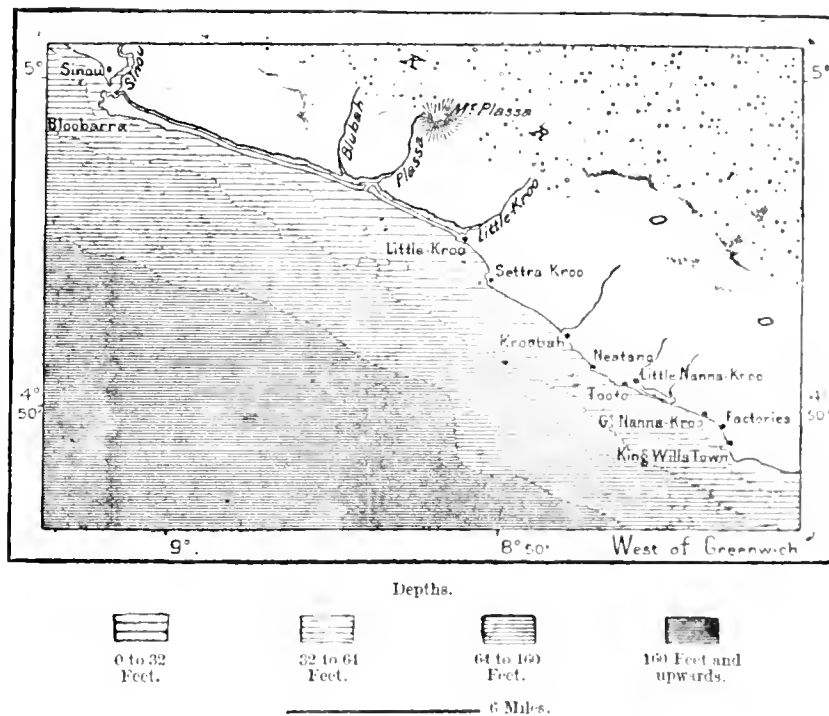
On the north frontier the banks of the Marfa and Fisherman's Lake are held by the Vei, a branch of the Mandingans, numbering some fifty thousand souls. These peaceful agriculturists have mostly adopted Islam, but their harmonious speech, which has been carefully studied by Koelle and other grammarians, is gradually being replaced by Liberian-English. It possesses a syllabic alphabet of over two hundred characters, invented in 1834 by Doah Bukeré, a powerful member of the tribe. This writing system is even still used in correspondence and for recording family events, and in it the inventor wrote a history of his nation and a treatise on ethics.

South of the St. Paul follow the still savage Barlins, and beyond them the

Bassas, the Kroos south of the Sinu River, and the Grebos near Cape Palmas. The peaceful and industrious Bassas, numbering fifty thousand, supply a great part of the republic with rice, poultry, and other provisions. A southern branch of the Bassas, together with the Fishermen, the Nifus, Grebos, and Krus, numbering collectively about forty thousand, are grouped under the general designation of Kroomen, or Krooboys, either a corruption of "crew-men," "crew-boys," or else derived from Kraoh, the primitive name of one of their tribes living near Settra-Kroo. They are traditionally from the interior, the kindred Grebos having apparently reached the Cape Palmas district since the Portuguese discoveries. But they

Fig. 92.—TERRITORY OF THE KROOMEN.

Scale 1 : 420,000.



have now become skilful fishermen and excellent sailors, displaying uncommon daring, coolness, and dexterity.

The Kroos, properly so called, form a compact body only in the narrow strip of coast between the Sinu River and Cape Palmas, where are situated their five chief villages, Kroober, Little Kroo, Settra-Kroo, Nana Kroo, and King Williamstown. But beyond this territory they occupy numerous hamlets on the coast, where every town has also its Kroo quarter (Krootown), exclusively inhabited by these seafaring Negroes. They are a stout, muscular, broad-chested race, probably the most vigorous and robust of all African peoples. The head, joined by a bull's neck to their broad shoulders, presents the ordinary Negro type—flat nose, prominent cheek-bones, thick lips, slightly projecting incisors, yellow, blood-shot eyes: in fact, "the

head of a Silenus on the body of an Antinous." Morally, as well as physically, the Kroos are one of the most remarkable peoples in Africa. At once honest and proud, and conscious of their power, they are passionately fond of freedom, never enduring servitude at the hands of any masters. Although settled on a seaboard exposed for four centuries to the visits of the slavers, they have always combined to resist every attempt at capture, and when they were seized they either starved or drowned themselves to escape bondage. Nor did they ever themselves trade in human flesh with the whites, although domestic slavery was a national institution. The Fishermen, however, originally a distinct tribe, but now mainly assimilated to the Kroos, made no slaves, but sacrificed captives taken in war under a fetish tree.

The Kroos constitute small commonwealths, whose hereditary chief is, so to say, merely a "minister of foreign affairs," whose duty it is to deal for the common good with European captains and the representatives of Liberia. He does all the speaking at the palavers, gives and receives the presents, but takes no part in the government of the tribe. The elders, recognised by the iron ring worn on their leg, discuss all the communal interests, deliberating on the measures to be taken and securing their execution. Their president, who is at the same time head of the fetish-men, has charge of the national symbols. His house is a sacred asylum for fugitives, whom he protects until convinced of their guilt. He is regarded as specially entrusted with the welfare of the nation, so that if all goes well he receives the public thanks, but otherwise is deposed and reduced to the position of a private citizen. Property, apart from a few personal objects, is held in common by the whole family, and cannot be alienated without the consent of its adult members. The land also is theoretically a collective property, but the actual tiller of the soil is its *de facto* owner, and he can be dispossessed by no one, although he has no right to sell it. When he ceases to work his plot it reverts to the community.

Notwithstanding their devoted attachment to their homes and families, the Kroos are of all Africans the most given to temporary emigration. Leaving the cultivation of the soil to the women and captives, they offer themselves in their fourteenth or fifteenth year for employment either in the factories or on board ship, usually, however, stipulating for a short engagement, seldom extending beyond "thirteen moons." But for them European trade on the Guinea coast would be almost impossible. Vessels that have lost all or most of their white crews would be at the mercy of wind and water but for these hardy and daring mariners, who thus completely disprove the commonly accepted statement that the natives of tropical lands are always hopelessly indolent. Full of respect for their employers and loyal to their engagements, the energetic and persevering Kroomen also expect and insist on the faithful execution of the contract by the traders or skippers engaging them. They also do some trading on their own account, selling to the ships' companies cattle, rice, ground-nuts, palm-oil, and preparing sea-salt for the Mandingaus of the interior.

The Kroo language, a member of the Manda family, which also includes the Fanti, Ashanti, Bassa, and Grebo, is gradually giving place to English, at least in the neighbourhood of the factories. Most of the chiefs have received and accepted

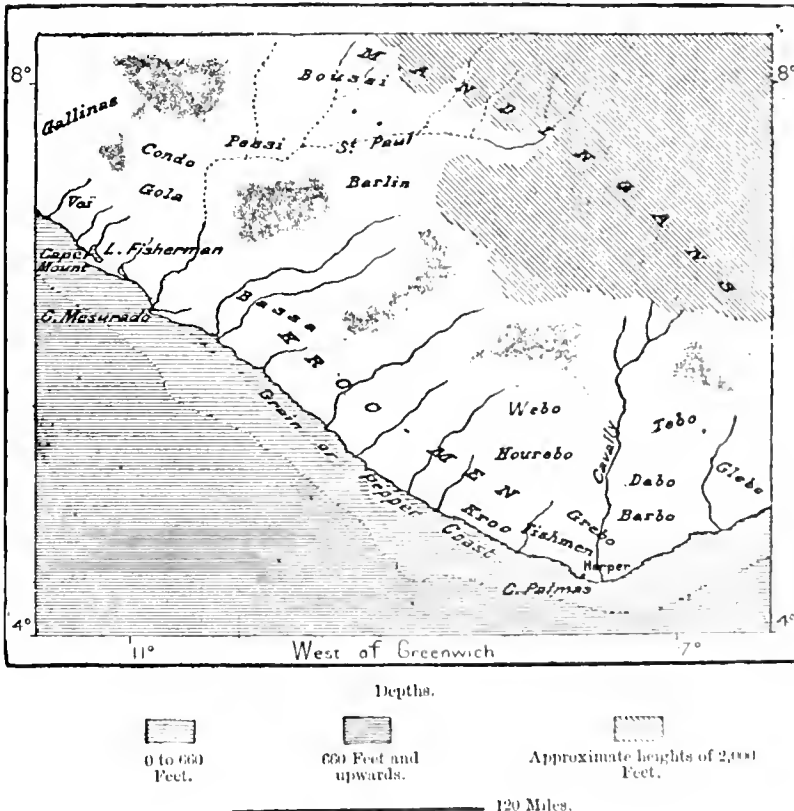


jocular English nicknames, such as Jack-after-Supper, Flying Jib, Two-pound-ten, and the like. Most of the villages also have an English by-name, and nearly every group of huts has in its vicinity a quarter bearing a similar name, preceded by the words "half," or "picaminy." The Kroos are also taking to European clothes, pea-jackets, felt or straw-hats, umbrellas, bracelets, and other ornaments, and the houses themselves are often fitted up with English furniture.

It may be questioned whether this native race is not exercising more civilising influences on the indigenous elements than the "American" colonists with their

Fig. 93.—INHABITANTS OF LIBERIA.

Scale 1 : 6,000,000.



pedantic ways and borrowed formulas. The white population numbered in 1884 no more than forty persons, all males except the wife of a missionary. The coloured people call themselves whites, and as such aspire to the government of the republic. Here party struggles turn on the ascendancy of the "coloured" or half-caste and full-blood Negroes, and hitherto the former have maintained themselves in office.

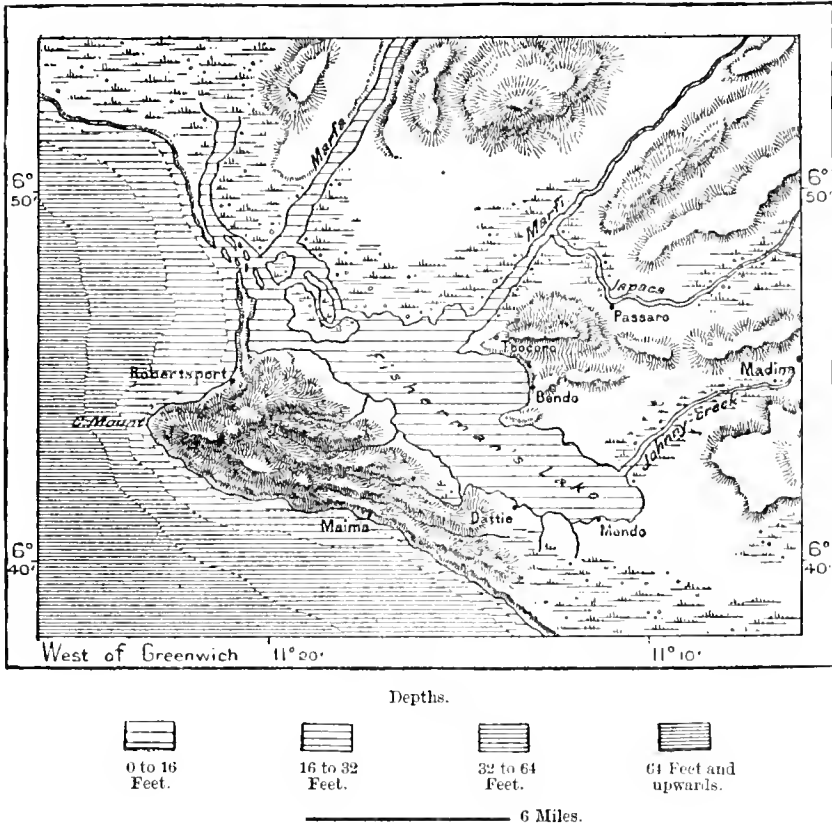
Apart from a few upright men who have endeavoured to carry out the work of moral regeneration for which the colony was founded, most of the Weegee, or "civilised" Liberians, endeavour to assert their own superiority by despising the

“stinking bush-niggers,” as they call the aborigines, and keeping them in a state of servitude and degradation. Scarcely any alliances are contracted between the “Americans” and the native women, so that the civilised population is mainly recruited by fresh arrivals, such as the numerous emancipated Negroes from South Carolina in 1877. Left to itself, it would diminish from year to year, and finally become absorbed by the surrounding aborigines.

Slavery has been abolished only in name, for although the law pronounces severe penalties against purchasers of slaves, it does not prohibit the traffic in

Fig. 94.—ROBERTSPORT AND FISHERMAN'S LAKE.

Scale 1 : 380,000.



“boys,” whom the planters get from insolvent chiefs in the interior and keep in bondage. The missionaries, who are here relatively numerous, have founded several inland stations, where they buy orphans and bring them up in the American way, giving them the name of some United States patron, who pays for the education of his adopted child. Several of the tribes about the plantations have also been converted to various Protestant sects, and like their kinsfolk in the New World, hold those camp-meetings at which prayers, psalm-singing, and preaching or shouting are intermingled with groans, sobs, frenzied dancing, fits, and convulsions.

The foreign trade of Liberia, which in 1885 was almost monopolised by three commercial houses, bears but a slight proportion to the extent of the state. Formerly the chief relations were with America, but at present nearly all the traffic lies with England and Hamburg. The people themselves take a direct part in the coasting trade, which employs a number of small craft of fifteen to eighty tons burden, built at Monrovia. Ivory, formerly a staple of export, has now been mostly replaced by dyewoods, caoutchouc, palm-oil, coffee, ground-nuts, exchanged for textiles, implements, paper, and especially spirits and tobacco. The barter system of trade still prevails almost everywhere except in Monrovia and the other seaports, which have adopted a metal currency.

#### TOPOGRAPHY.

Despite its convenient position, *Robertsport*, the northernmost town in the republic, is still little more than a rural commune dotted over with houses and huts. It is pleasantly situated at the foot of Cape Mount, whence an extensive prospect is commanded of the blue waters of Fisherman's Lake and of the sea, with its white fringe of breakers encircling the verdant headland. One of the crests of this peninsula, rising above the fever zone, has been chosen as the chief residence of the Liberian missionaries. Robertsport is the natural depot of all the streams converging in the common basin of Fisherman's Lake, but its prosperity is impeded by the incessant local feuds of the Vei, Kosso, and Gallina chiefs, and so recently as 1882 it only escaped destruction by the opportune arrival of troops from Monrovia. In times of peace it receives its supplies from the hamlets of *Madina* on Johnny Creek, *Bessa*, *Coro* on the Japaca, *Cobolia*, residence of the Vei king, "Sandfish," and *Baporo*, capital of king "Boatswain," in the Condo country.

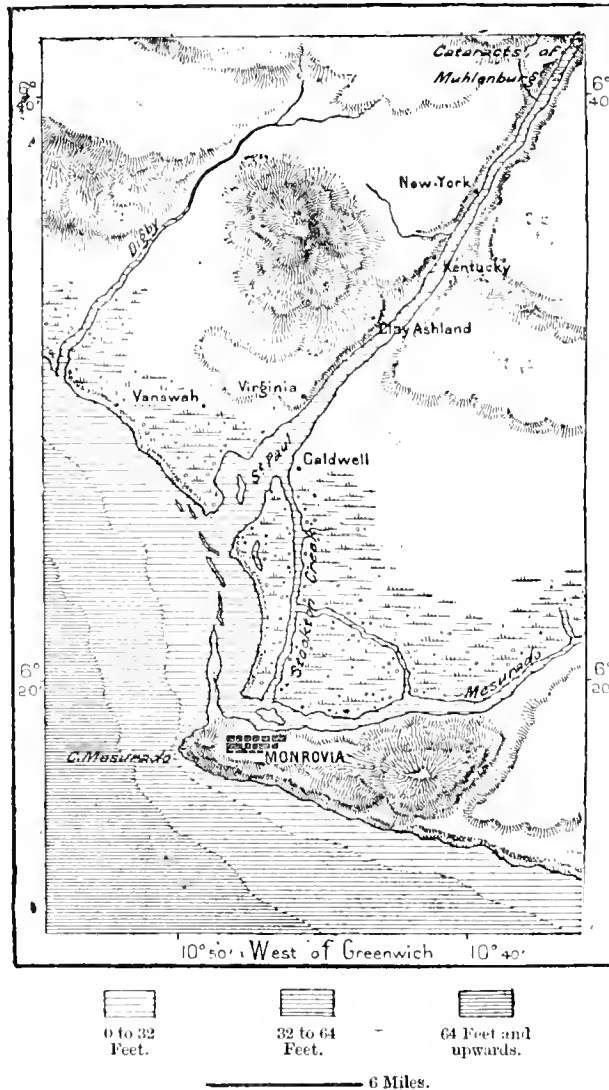
Baporo is a busy trading place, which at the time of Anderson's visit in 1868 had a population of about ten thousand, including representatives of all the surrounding tribes. But the dominant element were the great slave-owning Mohammedan Mandingans, who treat their slaves much more rigorously than do the neighbouring pagan tribes. All the towns in this district have sacred fishponds, inhabited by "armed fish," formidable animals which struggle furiously for the offal thrown to them by the natives. They are covered with scars, and Anderson had reason to think that they were occasionally fed with human victims.

*Monrovia*, capital of the republic, was so named in honour of the United States President Monroe. Its position is somewhat analogous to that of Robertsport, standing at the foot of a marine headland at the outlet of an estuary which receives the discharge of several inland streams. But in the absence of fresh spring water, the inhabitants have to depend on cisterns, or to draw their supplies from the interior. The town is laid out in the regular American style, the chief thoroughfares running east and west at right angles with the by-streets. But the stone or wooden houses are not continuous, being built at considerable intervals, with intervening courts and gardens planted with cocoa-nut palms and mangoes. The finer quarters are centred on the higher and more salubrious grounds near the fortifications which command the roadstead.

A steamer penetrating from Monrovia through Stockton Creek northwards to the St. Paul River at *Caldwell*, keeps up the communications with all the sugar and other plantations lining the banks of this artery. Here all the groups of houses bear some American historic or geographic name, such as *Virginia*, *Clay-Ashland*,

Fig. 95.—MONROVIA AND THE LOWER ST. PAUL RIVER.

Scale 1 : 480,000.



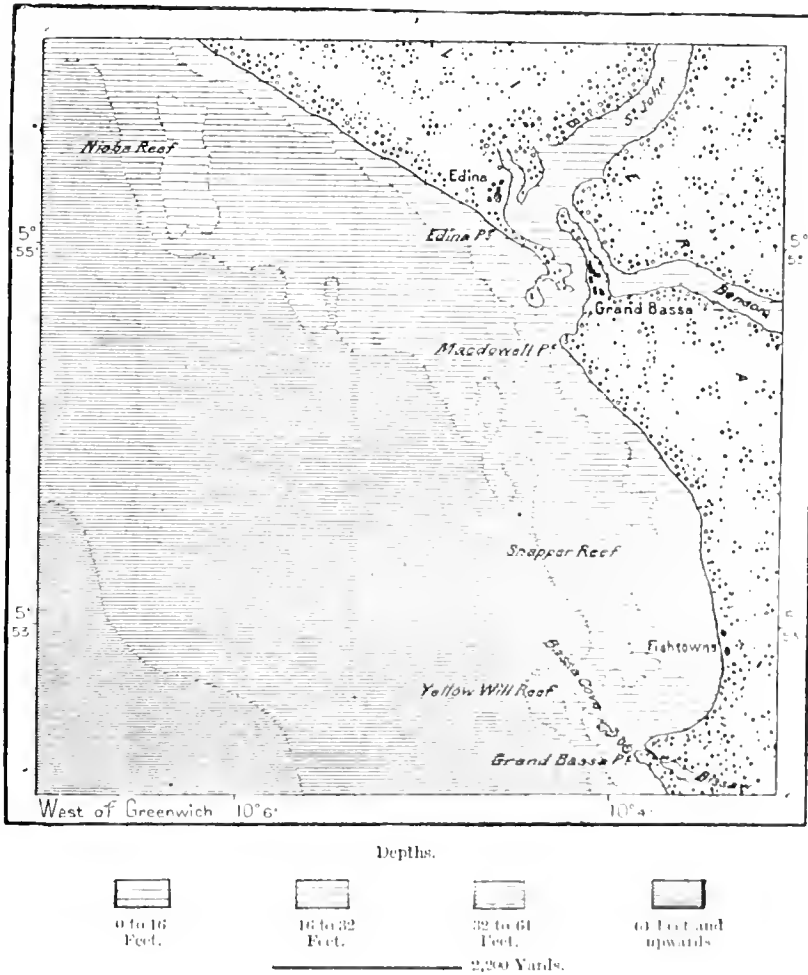
*Kentucky, New York.* *Millsburg*, the *Mühlenburg* of the German missionaries, has also some plantations and small factories on the rapids of the St. Paul. But the Mandingan traders, who avoid all contact with the despised “Americans,” and prefer to deal directly with the natives, have chosen as their depôt the town of *Vanswah*, situated in the marshy district a few miles west of the river. Here they

have a school and a mosque, and from this place runs a well-kept highway across the forests northwards to Baporo. At *Bojeh*, about 60 miles from the coast, this road crosses another running south-west through *Sublum*, capital of the Gola territory, to Fisherman's Lake. These trade routes have a normal breadth of from 6 to 7 feet.

The upper valleys of the St. Paul, hitherto visited by only one explorer, seem destined to become one of the most flourishing regions in Africa. Here the popu-

Fig. 96.—GRAND BASSA AND MOUTH OF THE ST. JOHN.

Scale 1 : 73,000.

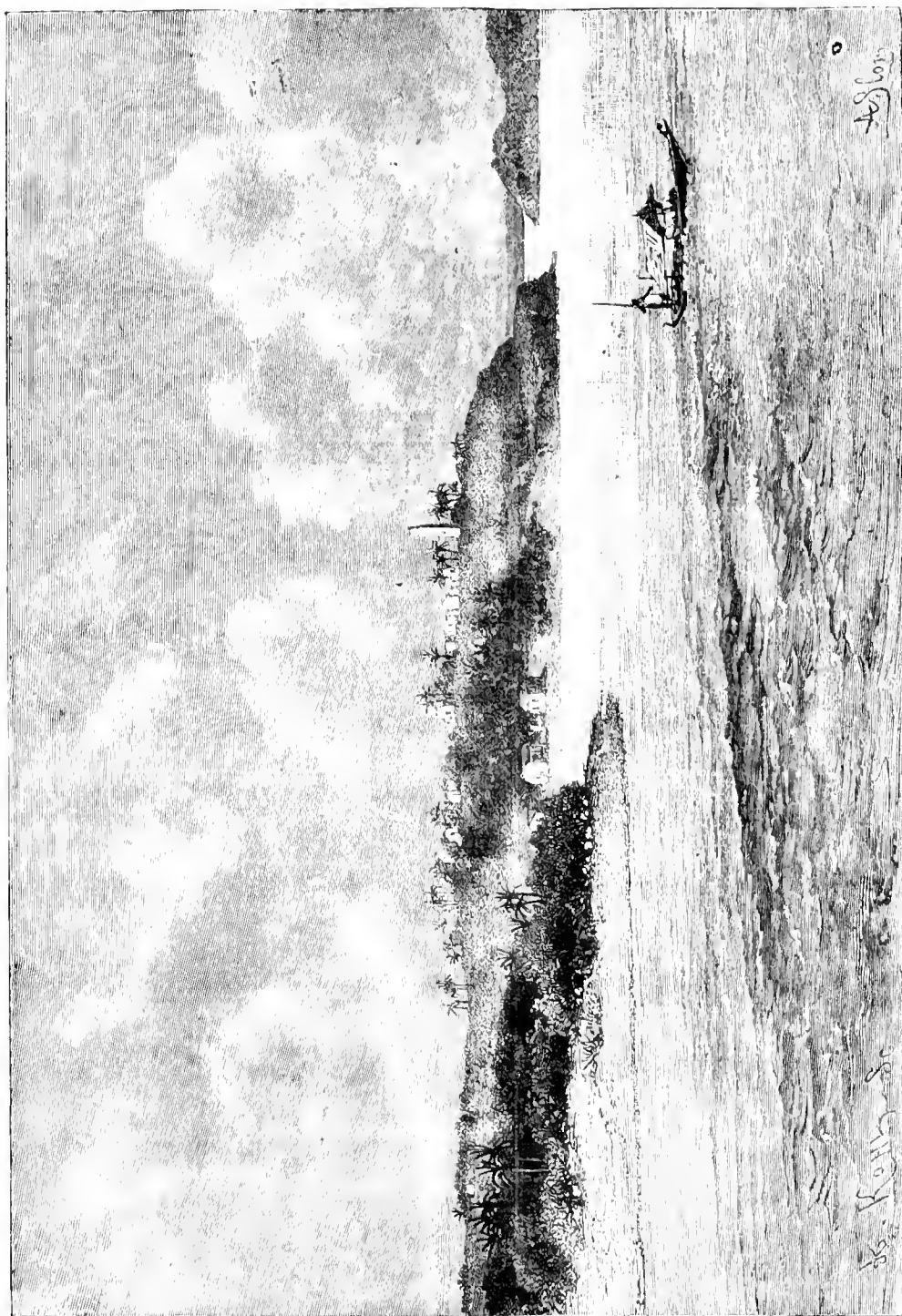


lation is very dense, towns and cultivated districts following continuously along the slopes of the plateaux. The towns visited by Benjamin Anderson in 1860, *Zolu*, *Fessabu*, *Bokkasah*, *Zigah Porah Zu*, in the Bussi territory, and *Zu-Zu* on the St. Paul, are all places of several thousand inhabitants, and their fairs are attended by multitudes from the rural districts.

The eastern slope of the Vukkah Hills belongs to the Mandingans, whose chief town is *Musardu*, or *Musadu*, which, although much reduced from its former splen-

dour, had still a population of nearly eight thousand in 1869, and its solidly built

Fig. 97.—CAPE PALMAS.



ramparts were defended by a numerous garrison. Nevertheless, since then it has

been several times occupied by the Sultan of *Medina*, a fortified town lying two or three days' journey farther east. Recent treaties with Liberia appear to have restored peace, and given the political suzerainty to the Monrovia Government. The women of Masadu and the neighbouring *Billelah Kaifat* wear jewellery made with the gold imported from the Upper Niger washings. According to Anderson, the most productive placer is at *Bubi*, a four days' march to the east of Masadu.

The small port of *Marshall*, at the mouth of the Junk, is but little frequented, whereas *Grand Bassa*, officially called *Buchanan*, is the commercial centre of the republic. Here are the chief factories, and the place is regularly visited by the large steamers plying along the west coast. On the opposite side of the St. John River stands *Edina*, over against Grand Bassa. Farther south the port of *Greenville*, at the mouth of the Simu, lies near the Kroo territory east of the *Great* and *Little Butu* rocks, coasts, and villages. Still farther south the new port of *Nifa* has been lately opened to foreign trade.

Cape Palmas, at the angle of the continent, marks the site of the "American" town of *Harper*, the *Bamnepo* of the natives. Capital of the old colony of Maryland, and now annexed to Liberia, Harper occupies one of the most salubrious positions on the coast, standing on a hilly island connected by a strip of sand with the mainland. The roadstead is sheltered by the islet of Russwurm, which is separated from the headland by a navigable channel. The white houses of Harper are visible from the sea through the clusters of cocoa-nuts which have given their name to Cape Palmas. But landwards the horizon is everywhere bounded by the unbroken skyline of the woodlands.

The chief station of the Protestant missions lies to the north-east, on the banks of the Cavally River, and above this point follow several other settlements as far as *Bohlen*, at the head of the fluvial navigation. Bohlen lies in a region of auriferous sands, which have not yet been explored, because the tutelary deity demands human victims, and in this land of petty republican confederacies men are too valuable to be thus sacrificed. (Winwood Reade.)

Not far from the mouth of the Cavally rises the "Stone of the Great Devil," a rock pierced at the base, which is frequented by awe-stricken pilgrims from every part of the Kroo territory. Their presents of corals, glass beads, tobacco, rum, animals, when placed at the entrance of the grotto suddenly disappear in a mysterious way. The sound made by the hidden demon swallowing the offerings of his worshippers is distinctly heard, say the believers. Near the stone is also shown the twisted stem of a tree, which is stated to be an impious scoffer, who laughed at the miracle as the clumsy trick of some knavish priest concealed in the recesses of the cave.

#### ADMINISTRATION.

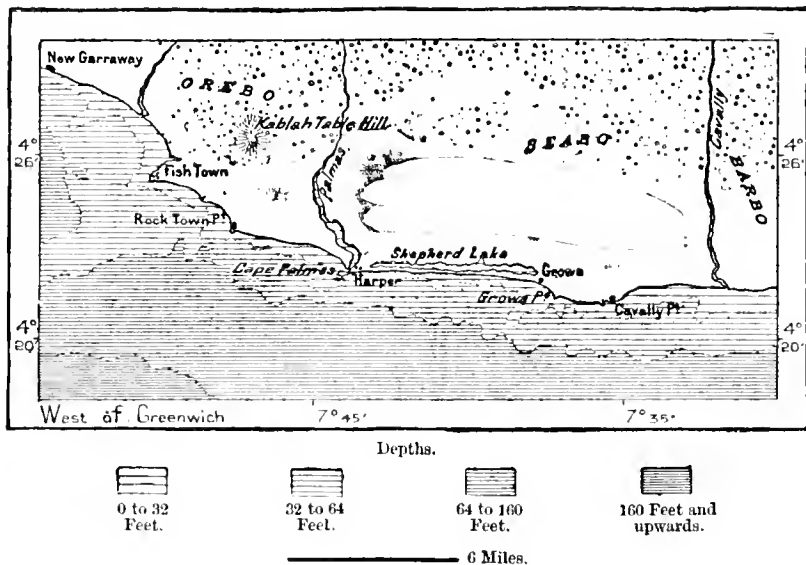
The Liberian constitution is slavishly modelled on that of the United States, without the slightest original feature adapted to the difference of race and climate. The Government consists of a President and a Vice-President, each selected for a period of two years from the class of proprietors worth at least £120. The

electorate comprises all citizens twenty-one years of age. In case of death the President is replaced by the Vice-President, who is also President *ex-officio* of the Senate. The executive is entrusted to five cabinet ministers, irresponsible to the Congress, which comprises a Senate of eight members elected for two years, and a Chamber of Deputies elected for four years. These at present number thirteen, but are liable to be increased with the increase of population. The citizens are not eligible before their thirtieth year, and whites are excluded from the franchise. Till recently they could not even purchase land without first becoming naturalised; but since the late modification of the laws they are able to acquire real property, although still only indirectly through Government agency.

As in the United States, justice is administered through district courts and a high court at Monrovia. There is no state religion, although the American

Fig. 98.—CAPE PALMAS.

Scale 1 : 440,000.



Episcopal Church predominates, and public opinion exacts a formal observance of the Sabbath, even on the part of the Mohammedans. Every village of three hundred inhabitants supports a primary school, besides which two colleges have been founded for the higher instruction of both sexes.

All citizens between their sixteenth and fiftieth years are bound to military service, although seldom enrolled except during the wars with the surrounding tribes. The national militia comprises four territorial regiments, under the supreme command of a brigadier-general. The navy is limited to a few sloops and rowing-boats. The revenue falls short of £40,000; but the debt, imposed on the state by some dishonest speculators, is relatively heavy, amounting in 1897 to £264,000.

Liberia is at present divided into four counties: Mesurado, Grand Bassa, Sinu,



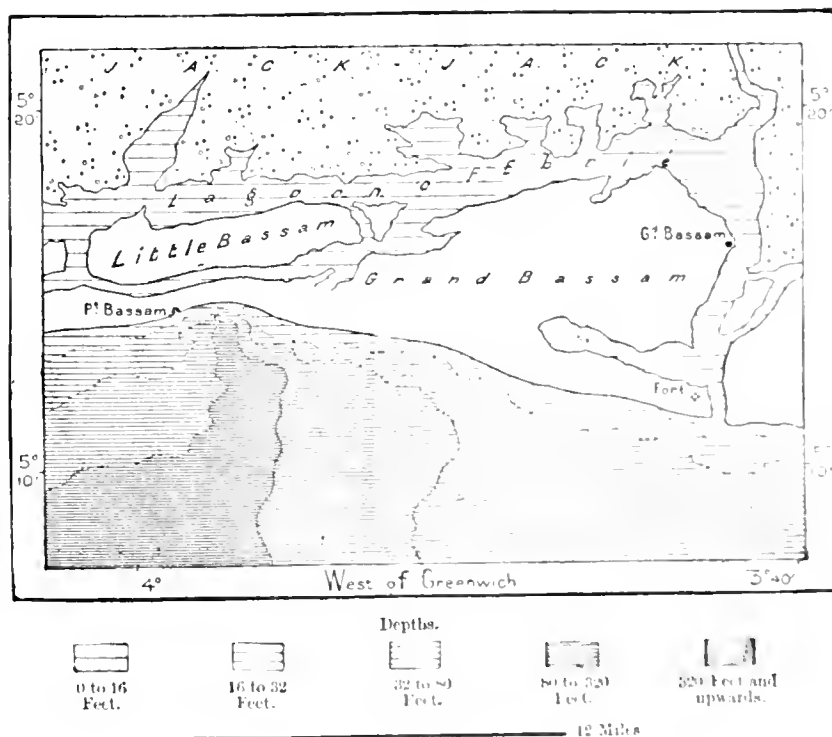
and Maryland. Until 1860 the last mentioned was a free Negro colony, forming a separate republic under the patronage of a Baltimore society. But since its union with Liberia it is administered by a "superintendent," who is charged with the duty of gradually assimilating the local institutions to those of the other counties. These are again subdivided into townships, defined, as in the United States, by geometrical lines, and each averaging 3 square miles in extent.

#### IVORY COAST—GRAND BASSAM—ASSINI.

East of Cape Palmas the coast-line develops a curve of surprising regularity stretching for 370 miles eastward to Cape Three Points. The greater part of this gently curved seaboard takes the name of the Ivory Coast, and also that of

Fig. 99.—DITCH OF LITTLE BASSAM.

Scale 1 : 425,000.



the Leeward, in contradistinction to the Windward Coast, exposed to the fury of the Atlantic storms. It is divided by no prominent natural landmarks into distinct regions; nor were the political frontiers clearly laid down till 1891, when the French occupied the whole of the Ivory Coast, about 400 miles in extent, between Liberia and her settlements on the Gold Coast. This territory extends inland to the Kong region, which is now also held by the French.

The rest of the seaboard, stretching for 120 miles between the San-Pedro and

Lahu rivers, comprises the French settlements of the Gold Coast (Grand Bassam, Assini, Grand Lahu, and Jackeville), which for administrative purposes are attached to the Colony of the *Rivières du Sud*. Apart from the seaboard and the summits of the hills visible from the shore, little of this region was known before Captain Binger's expedition of 1890-92. Due north of the Ivory Coast were formerly supposed to lie the culminating points of the so-called Kong Mountains, which long figured on our maps from vague reports. But Captain Binger has shown that this range either has no existence, or is represented only by a comparatively low waterparting between the coast streams and the Niger basin.

The western section of the Ivory Coast, bordering on Liberia, is the most elevated, and here the Sassandra (Saint Andrew) hills attain an extreme altitude of 980 feet. Farther on, Mount Langdon and the Sisters rise to elevations of 360 and 390 feet respectively. Most of the cliffs appear to be of sandstone formation, and the streams here reaching the coast are said by the natives to traverse a large inland lagoon called Glé. The Lahu River, which now marks the western limit of the French possessions, seems to be of considerable length, and evidently rises in the uplands of the interior. It sends down a large volume, and enters the sea through three arms with intervening wooded islands. But the bars are so dangerous that they cannot be crossed even by canoes. Here the submarine bank stretches for a considerable distance seawards everywhere except at Little Bassam Bay, that is, the point where the arc developed by the Ivory Coast reaches its extreme northern convexity. An extremely deep trough or ditch,  $1\frac{1}{4}$  mile wide, opens normally with the shore-line between the two submerged banks, which slope gently seawards. At  $4\frac{1}{2}$  miles off the coast the Little Bassam "ditch" has a depth of 1,600 feet; at a third of a mile 600, and close in shore 120 feet. This submarine valley resembles the so-called "Gouf" near the south-east angle of the Bay of Biscay.

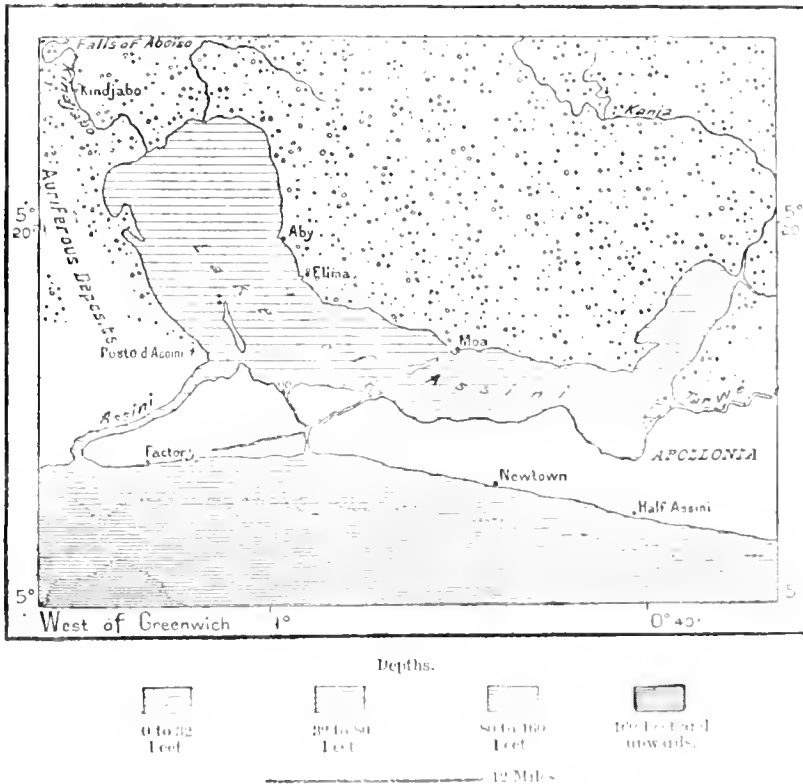
Before reaching the sea the Lahu spreads out westwards in an island-studded lagoon separated from the Atlantic by a narrow strip of land. But east of the river this lagoon formation acquires far greater proportions. For a space of over 130 miles between the Lahu and the Tanwé there is, so to say, a double shore-line, the outer or seaward beach running in an almost straight line for an interminable distance west and east between the foam of the breakers and the verdant forests. The inner or continental line is broken by creeks and secondary inlets, presenting a labyrinth of approaches to the rivers of the interior. The Ebrié lagoon, forming the western section of this system of inland waters, comprises a multitude of channels, passages, isles, islets, and banks, stretching for 70 miles parallel with the coast, and navigable at all seasons for boats drawing  $2\frac{1}{2}$  feet. The Akba or Comoé, largest of its affluents, and said to be 240 miles long, enters the lagoon at its east end, where it pierces the outer coast-line to reach the sea. During the floods it has a velocity of from 8 to 9 miles an hour, and its alluvia causes the bar to silt up to such an extent that vessels drawing 10 feet are unable to enter the lagoon. But at other times the bar is easily crossed, and the Great

Bassam mouth, as it is called, gives the best access to the interior on the whole coast from Cape Palmas to the Bight of Benin. But about 24 miles from its mouth the Akba is interrupted by rapids near the village of Little Alepé.

The approach to the Assini (Issini) lagoon, some 22 miles farther east, resembles that of Lake Ebrié, but is shallower, more tortuous, and inaccessible to craft drawing more than 5 feet. But in the interior the lagoons ramify into numerous deep creeks and inlets, the two chief influents being the Bia or Kinjabo in the north-west, and the Tanwé, forming in the east the frontier of the French posses-

Fig. 100.—\*ASSINI.

Scale 1 : 720,000.



sions. The latter has been ascended to a distance of 60 miles from its delta in the Assini lagoon, but on the Kinjabo all navigation is soon arrested by the Aboiso Falls. Both rivers, as well as their tributaries, are washed for gold, the tenacious clayey soil of their beds yielding an average of about two shillings the cubic metre. On the slopes north of the lagoon, Chapier has discovered boulders and clays of glacial origin. Thus for a space of 900 miles, from the south Senegambian rivers to the Gold Coast, traces are presented of former glacial action.

#### CLIMATE, FLORA, AND FAUNA.

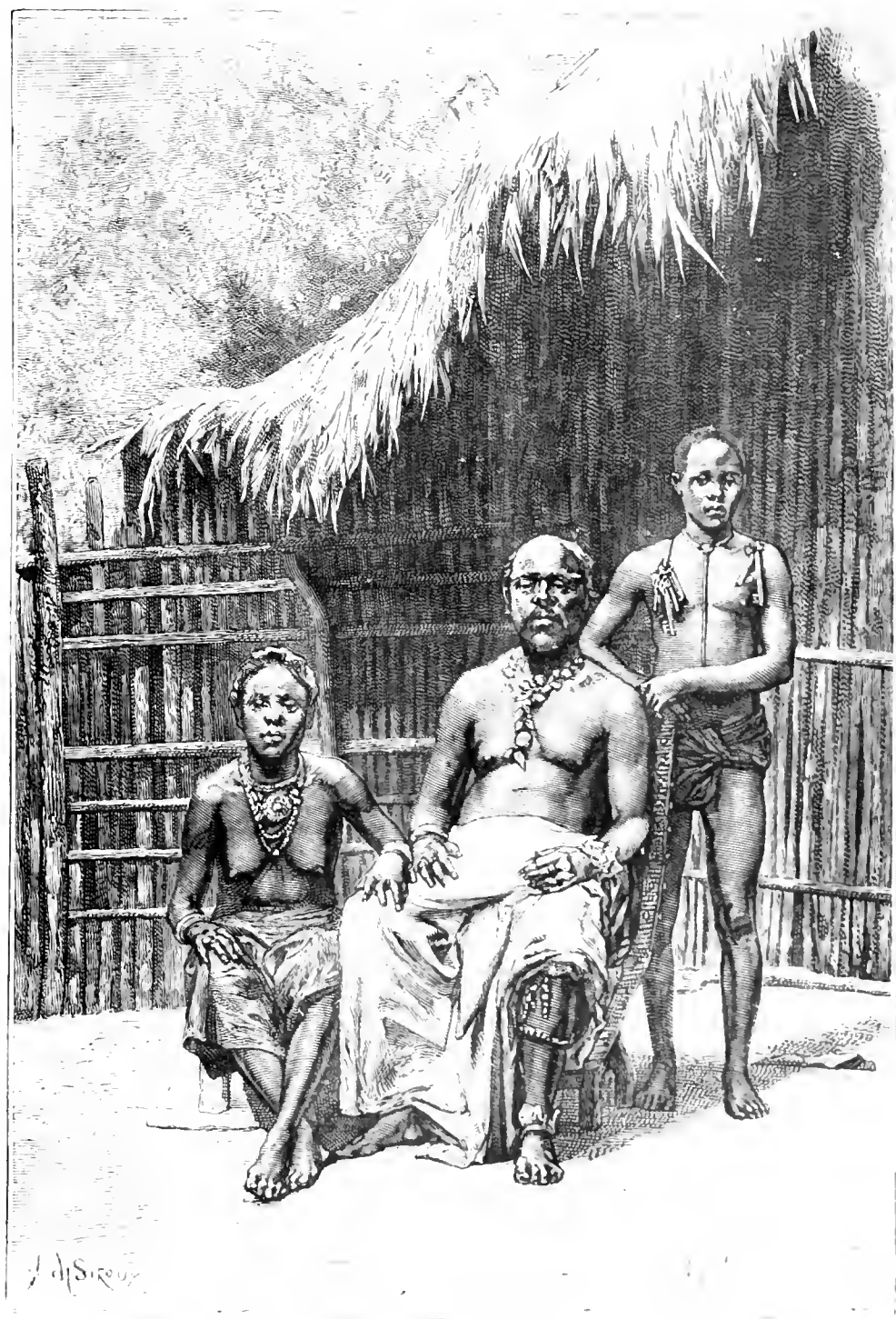
The climate of the Ivory differs little from that of the Grain Coast. Here also

the year is divided into two rainy seasons, with two intervening periods of dry weather. For strangers the most dangerous period begins in October with the north-east winds, corresponding to the harmattan of the Liberian coast. The exports, such as oil, dyewoods, gums, ground-nuts, wax, ivory, also show that the flora and fauna of the unexplored interior are much the same as in Liberia. The

Fig. 101.—WOMEN OF GRAND BASSAM.



only plant extensively cultivated is coffee, which is largely grown by a French house along the west bank of the Albi. Here are found three species of monkeys, including the chimpanzee; the elephant also is occasionally seen on the coast. But the hippopotamus, which formerly frequented the creeks and lagoons, has almost entirely disappeared, at least from the Assini district. Chapar has met the



THE KING OF AFRICA



sloughs of pythons over thirty feet long and twenty inches round in the middle. But notwithstanding their size, these animals are little dreaded by the natives.

## INHABITANTS.

The populations in the western districts of the Ivory Coast are still classed as Kroomen. The Glebos (Gleboé), as they are called, belong probably to the same stock as their western neighbours, the Grebos, and the two names are perhaps fundamentally one. Cannibalism is said to have only recently disappeared, and mention is made of a tribe in this district with such a limited vocabulary that their speech requires to be supplemented by continuous gestures and play of features. On the banks of the Glé lagoon report speaks of a colony of fetish women, vowed to celibacy, and governed by a queen, who by means of certain herbs develops a kind of artificial elephantiasis. All male children born in these Amazonian villages are at once put to death, but girls are carefully trained for their future profession of fetish women.

East of the Glebos follow numerous tribes, scarcely better known than the foregoing, and speaking dialects of which very incomplete vocabularies have hitherto been procured. The leading people appear to be the Avekvoms or Avikoms, who occupy a part of the Adu country to the west of the Lahu river. For over two centuries these Negroes have been commonly known by the name of Kwa-Kwa (Quoa-Quoa), from their salutation, which Bosman compares to the quacking of ducks. The trading station of Great Lahu on the outer coastline west of the Lahu mouth is inhabited by Avekvoms.

The tribes farther east about the Ebrié Lagoon are generally known by their English nickname, Jack-Jack. They are active traders, playing the part of agents or middlemen for the inland populations, and dealing directly with the European shippers of palm-oil, nuts, and other local produce. In 1884 they thus disposed of five thousand tons of oil, chiefly consigned to Liverpool and Bristol houses. The villages are very numerous about the Ebrié Lagoon, which has an estimated population of eighty thousand, largely engaged in fishing. Grand Bassam alone owns over five hundred canoes. The whole population of the Ivory Coast inland to the Niger water-parting cannot be less than five hundred thousand.

The tribes dwelling to the north of the French territories of Grand Bassam and Assini appear to belong to two distinct stocks—the Agni, the original owners of the land, and the Oshin conquerors, who according to their tradition, arrived towards the end of the eighteenth century. The Agni are shorter, more thickset and robust, the Oshins slimmer, with longer head, and more projecting lower jaw. In some villages the women go naked, while the men wear a sumptuous robe or blanket of many-coloured strips.

But whatever their origin, all the tribes on this coast are alike noted for their mild disposition and trustworthy character. All business transactions are carried on exclusively by verbal contract, and although at times lasting for months or years, they are always scrupulously fulfilled. At present their territory may safely

be traversed in all directions; only expeditions are still very expensive, as the inhabitants of every village expect a present from every white traveller. For several generations there have been no wars in the district; still every native has his gun, with which he burns much powder, noise and uproar being indispensable elements of all festive gatherings. Islam has not yet reached this region, where the reli-

Fig. 102.—AONI TYPE.



gious observances are still of a purely Animistic character. But they do not appear to be celebrated with much zeal. The fetishes set up at the entrance of every village and at the cross roads are much neglected, and the tabooed or sacred groves are now mostly reduced to small enclosures, surrounded with skulls of animals and potsherds. In some places even the enclosures have disappeared, and the fetish temple is reduced to a mere diorite boulder brought perhaps in remote times



from the interior and now forming a stumbling-block in the path of the unwary wayfarer.

#### KINJABO—ADMINISTRATION OF THE IVORY COAST.

About the year 1860 a French vassal state was founded on the shores of Lake Assini by a chief of Ashanti origin, who resided at Kinjabo, a place of about thirty thousand inhabitants, on the left bank of the river. This bloodthirsty potentate's chief occupation seems to have been the administration of justice, and under the shed where he presided at the "sessions," the heads of his victims were piled up in pyramids. So recently as the middle of the present century the foundation of every village was preceded by a human sacrifice. The victim, made drunk with palm-wine, was beheaded and disembowelled, the fetish-man predicting the destinies of the future settlement by inspecting the entrails. The king even kept a band of slaves to supply the customary royal "blood bath"; but all this came to an end by the absorption of Kinjabo in the French colony in 1891.

The few French factories belong nearly all to a house in Rochelle, and the only places where any French officials reside are *Grand Bassam* and *Assini*, both situated near the bars of like name, and *Dabu* on a creek on the north side of the Ebrié Lagoon. Dabu is a fortified outpost, which holds in awe the Burburi, a fierce and restless tribe occupying some large villages near the Jack-Jack territory.

The French settlements on the Ivory Coast were formerly administered from the Gaboon. But by a decree of 1892 they were, jointly with the factories on the Slave Coast, attached to the colony of Rivières du Sud.

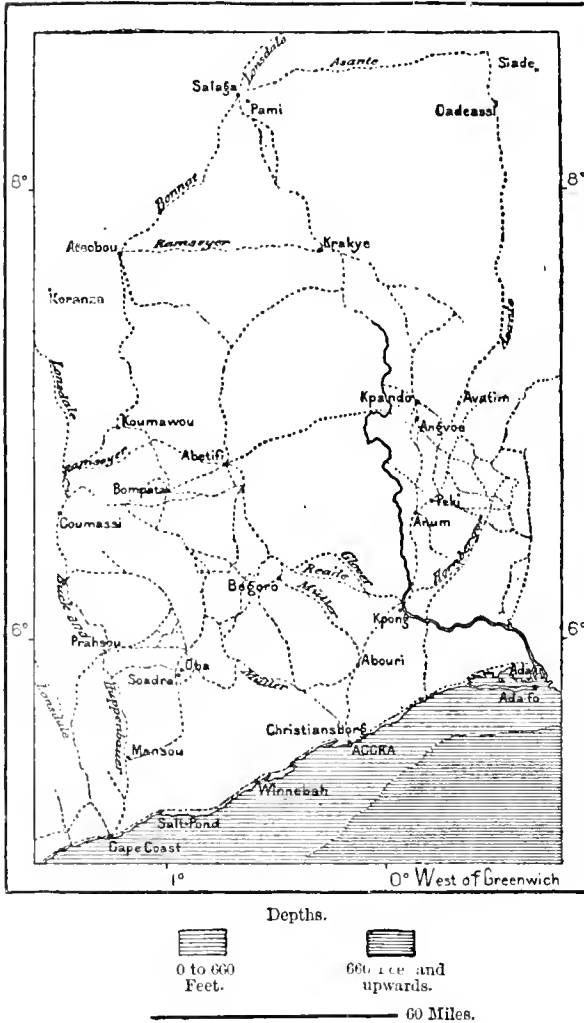
#### THE GOLD COAST AND VOLTA BASIN.

Nowhere else in Upper Guinea have the Europeans secured such a firm footing as in this region. The English, masters of the territory officially known as Cape Coast, from the name of its former capital, occupy a section of the seaboard 350 miles long, between the French possessions of Assini and the German factories of Togo. Inland their domain extends a little beyond Wa (10° N. lat.), which had been occupied by the French, but restored to England by the Treaty of June, 1898. The area of Cape Coast is estimated at 15,000 square miles, and including the protectorate 56,000, with a total population of over four millions. This includes the Kingdom of Ashanti, which in 1896 became a British protectorate, with a Resident at the capital, Cumassi.

The very name of this region accounts for the eagerness of the whites to establish factories on this coast and to explore the interior. Traders from all the European states were tempted to establish factories for the purpose of exchanging their wares for gold dust, and most of the Powers erected fortified stations to protect the trading posts of their subjects. The French, Prussians, Dutch, Danes, and Portuguese possessed such stations, but the English have become the exclusive heirs of the trade and political supremacy in this rich territory.

The actual priority of possession is one of the most warmly discussed questions in historical geography. In 1666 the traveller Villant de Bellefond, who had reached the Grain Coast, for the first time alluded to the Dieppe navigators who were supposed to have made settlements on the Gold Coast in the second half of the fourteenth century. But the undoubted discovery of this region dates only from 1470 or 1471, when it was first explored by the Portuguese navigators,

Fig. 103.—ROUTES OF CHIEF EXPLORERS NORTH AND EAST OF CAPE COAST.  
Scale 1 : 2,950,000.



Santarem and Escovar. About twelve years later King John II. had the fort of Sam Jorge de la Mina erected on a headland of the coast, and by his orders the transports were scuttled which had accompanied his ships of war. This was done in order that foreigners might suppose the Guinea waters unnavigable except for vessels of Portuguese build.

Nevertheless other nations also in due course found their way to the Gold Coast. The Dutch made their appearance towards the close of the sixteenth century, and after expelling the Portuguese, purchased the Brandenburg settlements founded in 1682 on Cape Three Points. The Dutch were in their turn driven out by the English, who in 1850 claimed the whole coast, except a few Danish and Dutch factories. The former were purchased by the English, the latter acquired in exchange for the rights possessed by the British to certain territories in

Sumatra. But the surrender of the Dutch factories in 1871 involved the English in hostilities with the natives, which terminated with an expedition against the Ashantis and the destruction of their capital. Since then the whole country has been traversed by surveyors and pioneers, and even in the conterminous territories the routes of explorers are continually expanding.

## PHYSICAL FEATURES.

The whole seaboard of the British possessions projects seawards beyond the normal coastline. But the most prominent headland is Cape Three Points, whose granite, diorite, sandstone, laterite, and conglomerate hills terminate in three sharp peaks. Several of the promontories at this angular section of the coast rise to a height of about 350 feet, and one of the inland summits 12 miles from the sea attains an altitude of 2,000 feet. Most of these hills in the interior are either isolated, or else disposed in short ridges, such as the Ajamanti group north-west of Accra. But north of this town occurs the dome-shaped Dampa, the first summit of the Akwapem hills, which develop a true range running north-east and gradually increasing in elevation. Beyond the gorge pierced by the river Volta, this range is continued nearly in the same direction through the Busso country towards the lofty crests of North Dahomey.

West of the Volta other ridges branch off from the Akwapem system. Such are the Okwahu hills, which run north-east, merging in a broad plateau 2,200 feet high, which falls southwards through a series of abrupt terraces, but slopes gently northwards to the thinly peopled steppes beyond the Okwahu territory. West of these grassy plains a few isolated masses 1,600 or 1,700 feet high, form the escarpment of the less elevated Ashanti plateau. Such are the Adansi hills, which have become famous in the history of recent wars, their densely wooded slopes forming the natural frontier of the Ashanti country on the route between Cumassi and Cape Coast.

In this hilly district lies the Bussam Oché, or "Sacred Lake," a landlocked lacustrine basin, which has become one of the great fetiches of the country. The fish here captured are smoked and exported, wrapped in banana leaves, to every part of Ashanti.

North of the hilly zone stretch vast plains strown with a few isolated bluffs, such as the majestic rocks resembling Gibraltar, which Lonsdale met on the route between Cumassi and Bontuku. The grassy plateaux are continued north-westwards to the territory of Kong, within the Niger Bend, which was first visited by Captain Binger in 1892, and has since become a French protectorate.

## RIVER SYSTEMS.

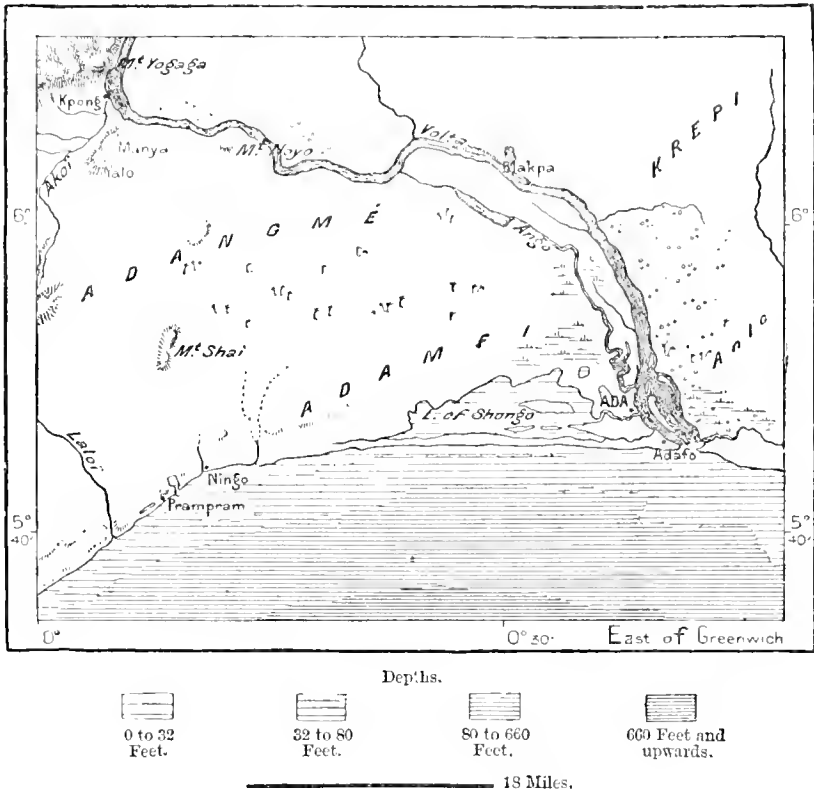
Copious streams descend from the hills and upland plains forming the water-parting east of the Upper Niger. In the west the first important river is the Ancobra, or Ankobar, which encircles the promontory of Cape Three Points, falling into the Bay of Axim through a broad mouth with a sill scarcely 7 feet deep. The Ancobra rises at least 150 miles from the sea, in the Ashanti country between the basins of the still larger rivers, Tanwé and Boosum Prah, whence it flows south-west and south through Wassaw, one of the richest auriferous districts

on the Gold Coast. Its name is a corruption of the Portuguese *Rio da Cobra*, or "Snake River," so called from its numerous meanderings.

East of Cape Three Points flows the Boosum Prah (Bussam Pra), that is, "Holy River," so named because it served a sort of *Via Sacra* for the Ashantis, who followed its course on their marauding expeditions to the south of their territory. Its formidable bar once crossed, the Prah, or "River," as it is now commonly called, may be ascended in large craft for a distance of about 100 miles, while higher up the Ashanti country may be reached in canoes through its western affluents.

Fig. 101.—THE LOWER VOLTA.

Scale 1 : 900,000.



Towards its eastern frontier the Gold Coast is traversed by the great river Volta, or Amu, probably the most copious on the African seaboard between the Gambia and the Niger. For five months in the year it is accessible to vessels drawing seven feet as far as Medica (Amedica), 55 miles from its mouth; and Bonnat ascended in a canoe beyond the rapids to Yeghyi, the port of Salaga, 240 miles from the coast. The floods, lasting from July to October, rise at Medica 46 feet and beyond the Krakye Gorge 65 feet above low water, and at Akwamu, 62 miles from the coast, the current is confined to a rocky channel little over 80 feet wide. Here five dangerous rapids follow within a space of half a mile, but above this point the stream flows placid as a lake in a broad bed 60 feet deep.

In the low-lying plains below the gorges the Volta expands in the rainy season to a breadth of some miles, and, although obstructed by a shifting bar, it is then accessible to vessels drawing 18 or 20 feet. On approaching the sea it develops a delta with several branches ramifying round the Kennedy Archipelago and other islands. Communication is also afforded through side channels with the coast lagoons, separated from the sea only by narrow strips of sand against which the surf breaks furiously.

The Quetta, one of these lagoons, is a veritable inland sea no less than 160 square miles in extent, and studded with numerous thickly peopled islands. Such is the geometrical symmetry of the semicircular beach facing seawards that the mariner has a difficulty in discovering the Cape St. Paul figuring prominently on the maps, but really indicated only in a conventional way by a buoy, which itself often disappears beneath the muddy foam of the raging surf.

Nowhere else does the *calemma*, or endless line of parallel breakers bursting on the sandy beach, present a more formidable aspect than at this point of the Guinea coast. Seafarers call it the "bar," comparing it to the sills which obstruct the river mouths, and it really acts like a "bar," or barrier, between the high seas and the shore, dreaded even by the most skilful sailors. At all times, even when the sea is calm, these crested billows roll in from the deep, lashed into fury by the tides, the winds, and opposing currents. Occasionally the daring Kroomen themselves refuse to venture in their surfboats across the furious waves, beyond which the large vessels are seen riding calmly at anchor in smooth waters.

#### CLIMATE.

On the Gold Coast the seasons follow in the same order and present the same phenomena as in the regions lying farther west. As on the Ivory Coast, the wet season, beginning in March or April, is ushered in with fierce tornadoes, after which the gales gradually fall off according as the rains set in. The monsoons reappear with the dry season, when the south-west winds strike against the coast, stirring up the waves and veiling the horizon in fog and mist. In October follows the period of short rains, the most dreaded by Europeans, dry weather again setting in with the new year. Then the harmattan is most prevalent, forcing back the breakers and facilitating the approach to the rivers, but also withering up the vegetation and filling the air with clouds of dust.

At the missionary station of Abetifi in the Okwahu uplands, 2,000 feet above sea-level, the temperature ranges from 51° F. to 95° F., and even at 62° F. the natives already complain of the cold. On an average these uplands are four or five degrees colder than the coastlands. The rainfall is also much higher, rising from 31 inches at Elmina on the coast to 44 at Abetifi. On the whole the climate is somewhat less dangerous than that of Senegambia, more especially as the two hundred or three hundred Europeans stationed in the country have been able to establish health resorts in the hilly districts of the interior.

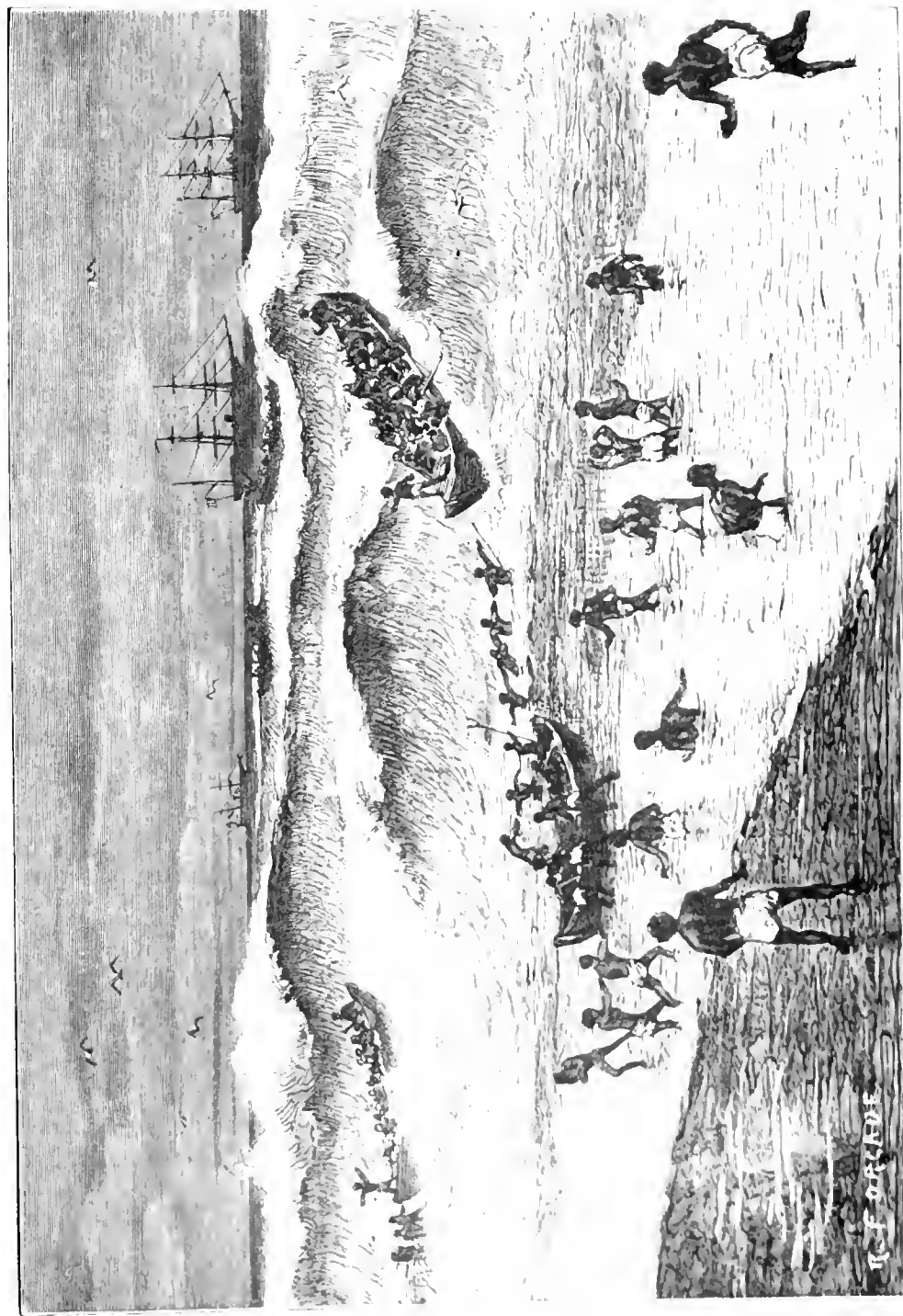
## FLORA AND FAUNA.

Thanks to the copious rainfall, the inland hilly districts are clothed with dense forests of gigantic timber. In Wassaw and Dankira the stem of the so-called Karkum has a diameter of 8 and even 10 feet, and grows to the height of 200 feet. But the districts stretching north of the Akwapem hills are deprived by these woodlands of the moisture needed to support forest growths, and are consequently covered with herbage, with here and there a few thickets of scant foliage. Yet even here large trees interlace their branches above the streams, forming long avenues of verdure along the riverain tracts. The Gold Coast is especially rich in palms of diverse species, and the butter-tree and kola nut also flourish in the northern forests.

The elephant was formerly almost as common on the Gold as on the Ivory Coast. Bosman, who resided at Elmina at the beginning of the eighteenth century, speaks of an elephant getting killed in the garden of that coast station, but at present these animals have almost entirely disappeared from the coastlands. Even beyond the Adansi, Ajamanti, and Akwapem hills, scarcely any game is now to be seen; but the more inland savannahs, and especially the Okwahu district west of the Volta, still abound in elephants, buffaloes, gazelles, wild boars, and various species of carnivora. The hippopotamus and crocodile are also numerous in the Volta, notwithstanding the European steamers now plying on that river. In the forests are met two remarkable simians, a black monkey with white beard, and an ashy grey with a long silken coat. In the savannahs the butterfly world is as varied as are the flowers themselves, and here the naturalist, Buchholz, collected no less than seven hundred species during a short trip to the interior. Amongst the insects is now included the formidable American "jigger" (*Pulex penetrans*), introduced from Brazil by the emancipated Negroes. The tsetse, or some analogous species, is fatal to cattle in many districts on the coast, and the destructive ants have been known to attack and devour poultry, and to drive the natives themselves from their dwellings. The great enemy of the ant is the apra (*Manis longicaudatus*), which is completely encased in strong scales, and sleeps like a snake coiled within its long tail. For the natives the most valuable animal is a species of snail, which is said by Bonnat to constitute the chief staple of food in Ashanti.

## INHABITANTS.

The peoples of the Gold Coast belong to two distinct stocks, the conquered aborigines and the conquerors. The former have held their ground as separate groups in the Upper Volta basin, and especially in the hilly inland districts. Those of the Brong country, north-west of the Ashanti state, are by the Ashantis collectively called Potoso, that is, "Barbarians," and most of them speak the Gwang, the Nta, or allied idioms derived from the same original source as those of their conquerors; but nearly all are now also familiar with the Oji or Ga of their political masters. Physically, the two races differ little from one another, except that the aborigines are more robust, and practice peculiar social usages



THE BAR AT THE MOUTH OF THE VOLGA.

W. F. ORLAND





But even these primitive contrasts are gradually being effaced by crossings, a common civilisation, and the spread of Islam on the one hand, and of English and Protestant influences on the other.

Besides the more closely allied Ashanti dialects, there are several others which, although belonging to the same group, are mutually unintelligible. Such are the Obutu of the Fanti district, and especially of the town of Aguna, a name formerly applied to the whole region now known as the Gold Coast; the Kyérépong of the Akwapem uplands, and the Akra (Inkram) with its two dialects, the Ga and Adamfi, spoken by over one hundred thousand persons on the Accra Coast and throughout the province of Adamfi, that is, the triangular space limited east and north by the Volta, and west by the Akwapem hills. The Banda, Gyaman, and Kong, current north of Ashanti, also belong to the same linguistic family, which is distinguished by monosyllabic roots and the use both of suffixes and prefixes. In Ga and Adamfi the roots are so few that the different tenses have to be distinguished by tones, as in the Indo-Chinese system. The figurative expressions employed by the Ashantis reveal a vivid fancy and considerable poetic sentiment.

The ethnical group of the Oji peoples, including the Ashantis (*Asanté*), Dankiras, Wassaws, Akims, Assins, and Fantis, is by far the most powerful in the mountainous country bounded west and east by the Tanwé and the Volta. The kingdom founded by the Ashantis, who till lately ruled over nearly all the other states in this region, dates only from the end of the seventeenth century, when the conquering tribe advanced from the land of Inta to the north or north-east. But this migratory movement seawards has been going on for countless ages all along the seaboard from the Senegal to the Congo, successive streams of migration flowing continuously from some common centre in the interior towards the coast. It is even now proceeding in the Ashanti country, where the intruding Mohammedan Mandingans are already numerous in the chief towns, and where several petty states have been brought under the preponderating influence of Islam.

The Ashantis are physically one of the finest peoples on the African continent, the men tall and well-proportioned, the women graceful, with regular features. The complexion is very black and the hair kinky, but the nose is thin, while the lips protrude very little; hence in their original homes the Ashantis may perhaps have intermingled with the Arabs and Berbers. They have a quick intelligence and excellent memory, and readily adapt themselves to their surroundings. On the river banks they are husbandmen, in the steppes stock-breeders, on the lagoons and seacoast fishers and boatmen, in the towns eager traders and skilful craftsmen. They weave cotton fabrics, turn and glaze earthenware, forge iron, fabricate instruments and arms, embroider rugs and carpets, set gold and precious stones. Their language, variously known as the Oji, Ochi, Chi, Tshi, &c., is one of the most harmonious in Africa, and has also been one of the most carefully studied, sufficient materials having already been collected for a comparative study of its various dialects during an evolution of two centuries. The best suited for literature appears to be, not the Akan, or court language, but that of Akwapem, into which the Bible, prayers, and hymns, have been translated. It scarcely

differs, except in pronunciation, from the Fanti, and before British intervention these two peoples were at constant warfare, although conscious of a common origin. According to the legend two brothers, after long enduring the pangs of hunger, found each an edible plant, one the *fan* the other the *shan*, whence their national names *Fanti* and *Ashanti*.

Before their power was broken by the English, the Ashantis had established an absolute government based on an organised system of terror. The despotism of the king over his subjects, of the nobles over their retainers, of the military chiefs over the soldiers, of master over slave, knew absolutely no limits. But its sanguinary code and atrocious customs at last rendered this system intolerable. Revolts and foreign wars, demoralisation within and the outward influence of more humane usages, brought about the dissolution of the Ashanti empire, the ruin of its institutions, and a gradual modification of the corresponding social order. The descriptions current in books of travel refer to a society which has ceased to be, but which has left behind it many traces of its former existence.

The Ashanti king ruled over a nation of grovellers, who crouched like whipped hounds at his feet, awed or terror-stricken at his every word or gesture. Although enjoying a traditional right of veto in questions of war and imposts, his ministers had long been content to play the part of fawning courtiers and approvers. One of the chief functionaries of the royal household was the head executioner, who wore as an emblem of his office a gold axe in a loop of his dress. The pages were armed with fetish weapons, enabling them to plunder indiscriminately and with impunity. The sovereign was moreover the legal heir of all the gold, gems, and precious objects belonging to his subjects, and on grand occasions he decreed a general confiscation of property on behalf of the treasury. All male adults formed his army, and on the declaration of war every man seizing his gun, his bag of victuals, his amulets, hastened to join the ranks; while the women, daubed with white clay, went in procession through the streets, searching the houses for laggards or deserters.

The throne was inherited not in the male line but by the eldest son of the king's sister, or by some other nephew on the female side. According to Bowdich, the official number of wives was 3,333, of whom five or six only occupied the private harem; but all were jealously guarded by eunuchs, and allowed to go abroad only at night. The king's sisters might marry the man of their choice, but this was a dangerous favour, as in case of her death or that of her son, the husband was expected, like a faithful slave, to follow them beyond the grave. Persons of royal birth were also frequently condemned to die, but without effusion of blood, by drowning in the river. The military chiefs also, in case of defeat, committed suicide in presence of their troops, in accordance with the Ashanti proverb, "Death is better than disgrace." Although, like the king, these "cabaceres" had many wives, most of the people were satisfied with one; but all were extremely jealous, while the greatest cruelties were sanctioned for trivial offences. Women suspected of sorcery were put to the torture, gossips condemned to lose the upper lip, and eavesdroppers deprived of one ear.

Before the British occupation, funerals were the most dreaded events in Ashanti. On the approaching death of a chief the slaves were watched or even chained to prevent them from escaping the terrible ceremony, and immediately after his last gasp two were sacrificed to accompany him beyond the grave. Then at the solemn burial, the whole gang of appointed victims, numerous in proportion to the rank or wealth of the deceased, walked in the funeral procession amid a throng of women howling and dancing, their bodies painted a blood-red colour. A certain magic word might save the wretches doomed to die; but the shouts of the rabble and the roll of drums always prevented the saving word from being heard. The executioners, known by their black attire, were deaf to all appeal, and to stop the cry for mercy closed the mouth of the slave either by gagging or by thrusting a dagger through both cheeks; then they severed his right hand and sawed off his head. But slaves did not suffice, and the great captain also needed the society of a free man in his future home. Hence one of the assistants, suddenly and at haphazard seized from behind, was immolated with the rest, and his still palpitating body thrown into the pit, which was immediately filled up. When the king himself died, hundreds perished in this way, all who had served as spies, or were known as *kra* or "souls," of the sovereign, being immolated to continue their watch over him in the other life. With him were also buried vast treasures, which his successor could touch only in case of extreme peril to the State.

The criminal code was no less sanguinary. To break an egg or spill any palm-oil in the streets of Cumassi, were capital offences. The arms of murderers were struck off before being killed, and the bleeding wretches had then to perform a funeral dance in the king's presence, lighted torches being applied to their wounds to stimulate them in the execution of the prescribed gambols. But the great "customs," or feasts were the chief occasion of the wholesale massacres, which had become a necessary institution under the Ashanti system of government. The autumn harvest feast had especially to be copiously watered with blood; at that season the provincial cabaceres were required to visit the coast, and on entering the town they offered a slave to the local genius. Each quarter had its sacrifices, blood flowed everywhere; the executioners indulged in frenzied dances, beating their drums decked with human skulls, and the fetish-men concocted philters against death by mixing human blood with corn. Licence reigned in the riotous city, for it was the feast of renewal, of life and death.

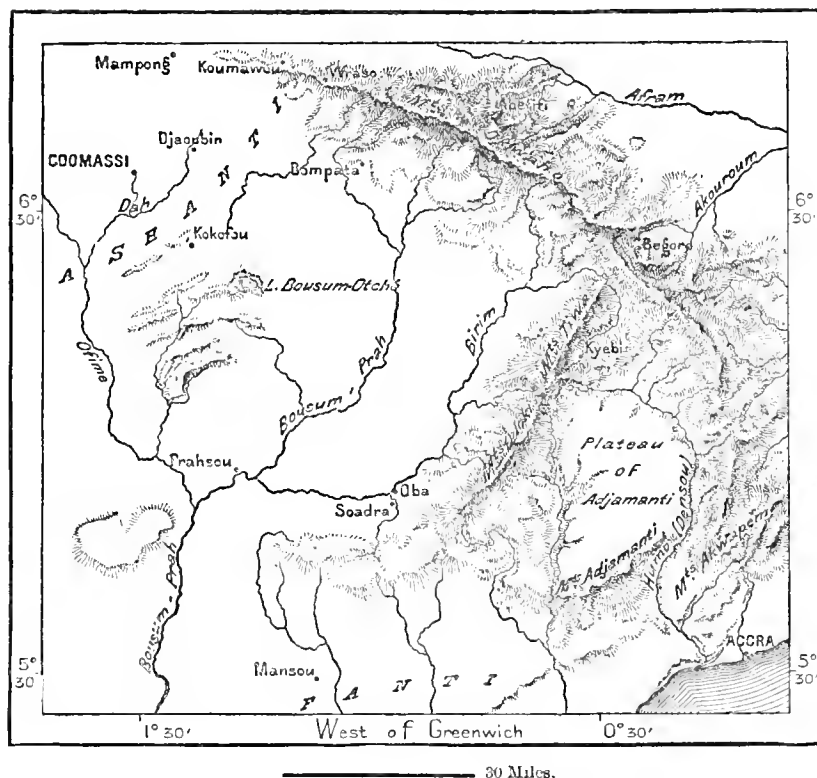
One of the streets of Cumassi was called "Never dry of blood," and according to a Fanti play of words the very name of the city meant "Kill them all." The new-born infant was slain on a day of ill-omen; in certain districts the poison cup was the means of solving all difficulties, and in this way whole villages were nearly depopulated. In such a land of terror and oppression life was held in slight esteem, and suicides became very frequent, especially amongst the slaves. When one of this class made up his mind to die he gave notice to his owner, who gave him a bottle of brandy to make him drunk, and then had him clubbed to death. It was full time that by the influence of the English on the one hand and

of the Mandingans on the other, an end should at last be put to such a frightful reign of carnage.

Before the war of 1873, which brought the English to Cumassi, the kingdom of Ashanti with all its vassal states occupied a space comprising in the north and north-east all the mountain slopes, while the plains of Dugomba for a distance of 240 miles paid it tribute. In the south the Ashantis had reduced the Dankiras, their former masters, and developing a crescent from the Assini to the Lower Volta, they were pressing the allies of the Europeans more and more towards the coast.

Fig. 105.—ROUTE FROM ACCRA TO CUMASSI.

Scale 1 : 800,000.



They had even reached the sea at the mouth of the Boosum-Prah, and elated by former successes over the whites, as at the battle of Essemaeu, in 1824, when they "devoured the courage of the English" by eating General MacCarthy's heart, they even attacked the fortresses on the coast, scaling the ramparts to the very cannon's mouth.

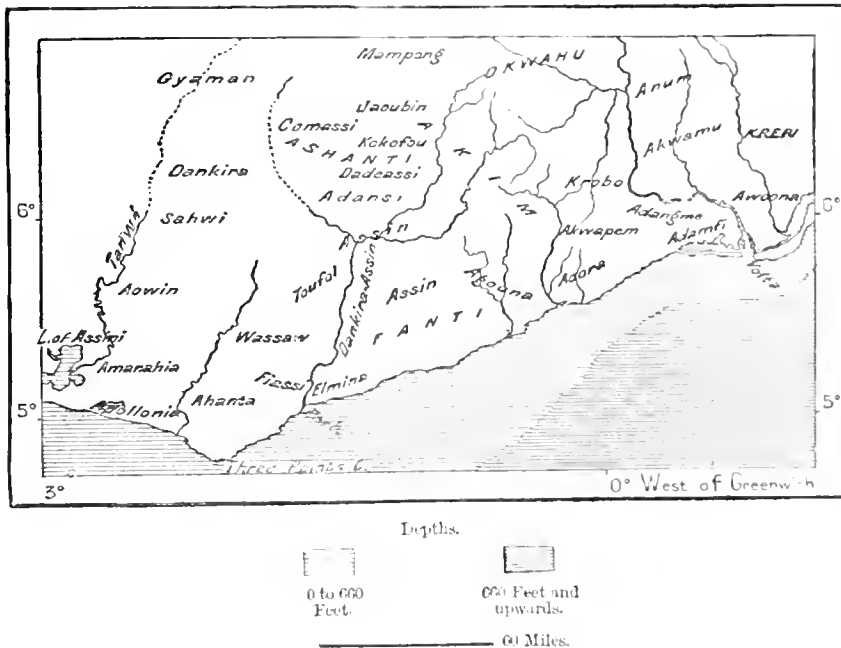
But in the decisive campaign of 1873, said to have been foretold by the fall of the great fetish tree at Cumassi, they were fain to yield to British valour, the flight of the king immediately involving the whole Empire in complete disorganisation. All the vassal provinces resumed their independence, and many Ashantis themselves were glad to settle in Dankira under British protection. The kingdom

is now reduced to the district limited on the south by the wooded hills of Adansi, and for a time a mere threat of the Governor of the Gold Coast sufficed to maintain order. But in consequence of a renewal of the customs and other atrocities, another expedition was despatched to Cumassi, which was occupied without resistance in 1896. The king is now little more than a pensioner, under the control of the Agent stationed in the Capital.

The Fantis had been the almost constant allies of the British, as the Ashantis had been of the Dutch. General MacCarthy, who died at their head early in the century, had become for them a tutelar deity; their most solemn oath was taken

Fig. 106.—GOLD COAST POSSESSIONS AND SURROUNDING DISTRICTS.

Scale 1 : 4,500,000.



in his memory, and many gave their children the name of Karté, Fanti form of the Irish MacCarthy.

Kinsmen, but hereditary enemies of the Ashantis, the Fantis resemble them in disposition and versatility of character. But their manners have changed, and instead of a single monarchical government, they have formed an almost republican confederacy of petty states. Thanks to long contact with Europeans, they have ceased to celebrate their feasts with massacres, and at burials the human victims are replaced by gifts of clothes, ornaments, and the like. Nevertheless the Fanti penal code is still severe, although capital punishment is no longer inflicted for slight offences. Amongst these peoples wealth is held in special honour, and till recently justice was sold in the most cynical manner. In lawsuits one of the suitors would challenge his opponent to prove the righteousness of his cause by a better present than his own to the *paimin* or "elders." Each party then displayed in open court



ever anxious to recover the land. On the other hand, the *Xyphias gladius* is a fish of good omen, whose sword is regarded as a priceless heirloom, protecting the family from all mishaps. Trees, plants, rocks, streams, are all classed amongst the beneficent or hostile spirits, and Bosman tells us that formerly the second wife in wealthy circles was specially dedicated to the genii, and as such declared to be fetish.

On the coast and uplands occur a great variety of tribal names, although most belong to the same stock as the Ashantis and Fantis, whom they resemble in speech, usages, political and social institutions, and religious views. Still the eastern tribes—Acceras, Krobos, Awunats, Agotimés, Krepis—are distinguished from the Ashantis proper by greater physical strength, courage, and industry. They were formerly collectively known as Minas or Aminas, a term now reserved for those living still further east on the Slave Coast.

At present numerous stations are supported by the Catholics and Protestants, but especially by the Lutherans of the Basle Mission, successors of the Moravian Brothers who arrived in 1736. But although some new villages are exclusively occupied by converted Negroes, very rare, comparatively speaking, are those calling themselves Christians for disinterested motives. Some, no sooner than baptised, make themselves Mohammedans; yet amongst them spring up new sects, which may, in many respects, be compared to that of the Chinese Taipings. The fetishes have lost their credit in the Adele and Akabu territories, east of the middle Volta, where the native missionaries are proclaiming a new gospel, announcing that a "son has been born unto God, who has forbidden all work on the Lord's day."

When the Portuguese spoke to them of a supreme God the coast populations regarded him as the great fetish of the European peoples. "Not he," they said, "but the earth gives us gold; not he, but our work has given us maize and rice; the sea yields us fish, and to you, Portuguese, we owe the fruit-trees." This foreign god was for them a white being like the men that worshipped him. But were they not blacks, and how could they invoke any other fetish except one of their own colour? By destiny itself their lot was made different from that of the whites. When the two first men had to choose between gold and letters, the Negro had taken the metal, while the white man learnt to read and write. Thus he became the stronger, and his God was the most powerful of all gods.

#### TOPOGRAPHY.

West of Cape Three Points the English have no important seaport. *Apiani*, standing on the strip of sand between the lagoon and the sea, is a mere hamlet sometimes called *Half-Assini*, as compared with the French factory at the issue of the lakes. *Behien*, the *Apollonia* of the Portuguese, is a mere group of huts like all the palisaded villages following in a continuous line eastwards. This section of the coast is one of the most densely peopled in Africa, although till lately possessing only a single centre of population. On a hill between the two villages stands the fort of *Arim*, originally Portuguese, then Dutch, now English, erected to

command the Ancobra valley, beyond which, towards Cape Three Points, are seen the ruins of the Brandenburg fort *Gross-Friedrichsburg*. Axim, the *Essim* of the natives, offers the best landing on the whole coast, thanks to the shelter afforded by the islets of Bobownsua and Poké. Here Burton picked up some implements of the Stone Age, and nowhere else on this coast have so many stone hatchets been found as in the Axim district.

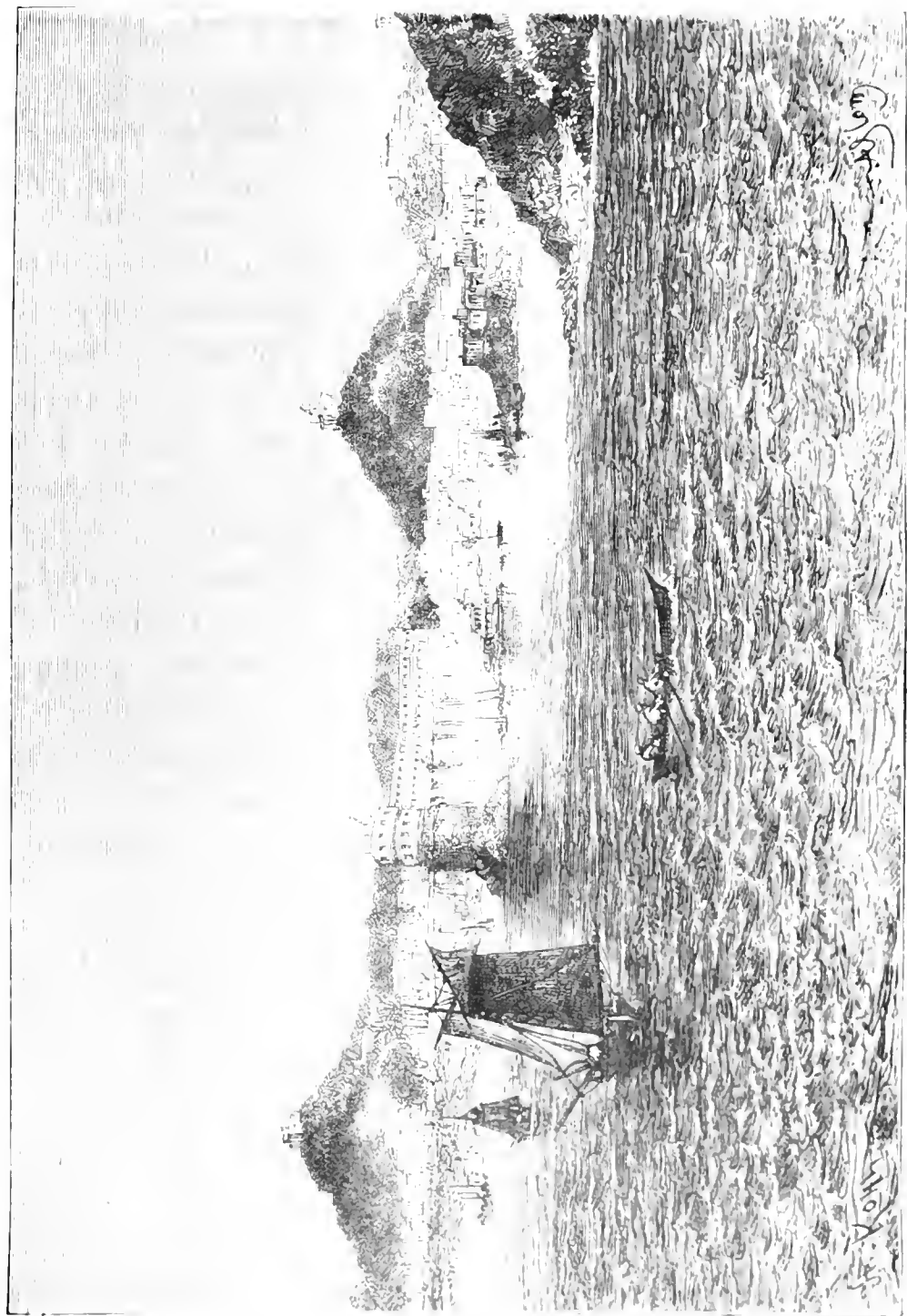
Axim must one day become the port of the whole region stretching away to the Kong, and comprising the still little known territories of Aowin, Sahwi, and Gyaman. A good road now connects it with the Ancobra, which affords the easiest access to the Wassaw gold mines. The petty chiefs have also been called upon to clear the forest routes and bridge the streams in order to keep the communication open between the coast and *Tarkwa* (*Tarquah*), headquarters of the mining district. A railway, 56 miles long, has even been proposed for the conveyance of the heavy machinery needed for the systematic working of the gold mines.

*Aodwa*, formerly capital of Wassaw, is now a mere hamlet, most of the people having gravitated towards the mines granted to English and French capitalists after Bonnat's careful survey of the ground. The gold is obtained especially from the gneiss and other primitive rocks, but the yield, which for many years averaged £125,000, fell in 1897 to £86,000. Veins of silver, copper, and tin have also been met in the hills, while iron and manganese occur everywhere. Gold dust is the only currency in this province of Guinea, from which the old English gold piece took its name. Most of the labourers engaged on the works are Apollonians and Kroomen, nearly all demoralised by the vices almost inseparable from this industry. The only noteworthy place beyond the mining district is *Mansu*, lying about midway on the new route between Tarkwa and the mouth of the Prah.

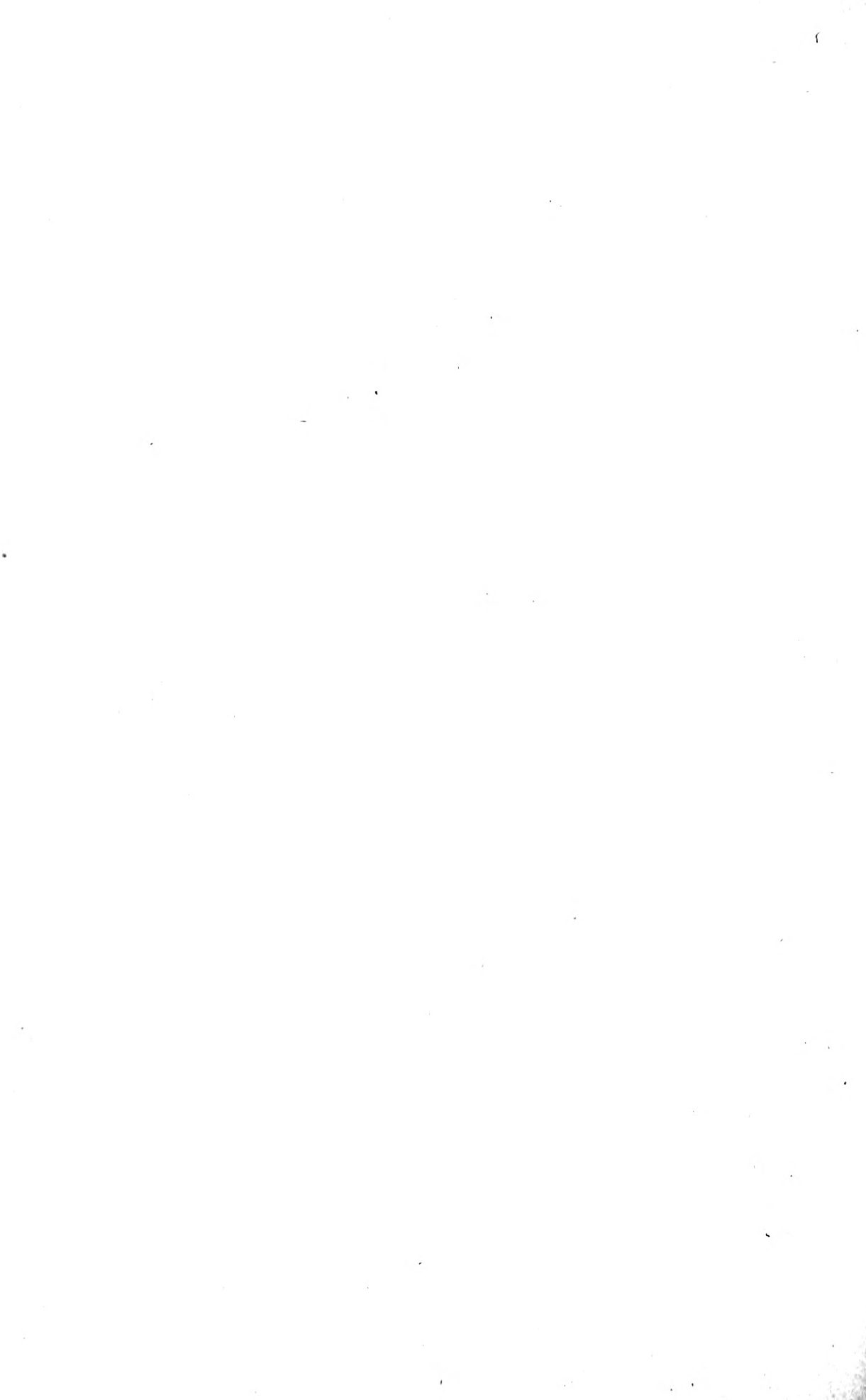
The fort commanding the little creek of *Dixcore*, east of Cape Three Points, has some strategic importance, thanks to its position near the headland. Most of the other old forts on this part of the coast are now in ruins, but *Chama* has been maintained and even enlarged in consequence of its position at the mouth of the Prah. But most of the trade with the interior has been transferred to *Elmina*, the oldest European factory on the Gold Coast. The French first settled at *La Mine* towards the end of the fourteenth century, and after their departure the Portuguese made Elmina their chief stronghold on this seaboard. Later it became the headquarters of the Dutch possessions on the Gulf of Guinea, and passed from them to Great Britain in 1871. Since then, having ceased to be a capital, it has lost most of its inhabitants, although enjoying the advantage of good carriage roads, both with the mouth of the Prah through the station of *Commendah*, and eastwards with *Cape Coast Castle*, which has become a chief centre of British authority on the Gold Coast.

The *Iyrah* (*Egra*, *Ogra*, *Gwa*) of the natives owes its English name of Cape Coast Castle to a misunderstanding of the Portuguese *Capo Corso*, the *Cap Corse* of the French, although the term "castle" is justified by a number of forts erected





CAPE COAST—SEAWARD VIEW.



on the encircling hills. The traders of this place do a considerable traffic with the



Prah valley and the Ashanti state, and here is the seaward terminus of the river.  
AFRICA II.

route leading through the Upper Prah basin to Cumassi. On this route the chief military stations are *Mansu*, at the confluence of the chief branches of the Prah, and *Prahsu*, or "Prah-head," on the river of like name, below the junction of the Birim. At the latter station, described as the "key" to Ashanti, the chiefs of that state come to consult or receive the orders of the British authorities.

*Cumassi*, capital of Ashanti, is a large place nearly 4 miles in circumference, situated on an extensive plain watered by a tributary of the Dah, the chief western branch of the Prah. Before the war it was said to have a population of seventy thousand, but since the destruction of the royal palace and neighbouring quarters by the English in 1874, most of the inhabitants have emigrated, and at the time of Lagden's visit in 1883, Cumassi differed little from the other Ashanti villages in the neighbourhood. But in 1884 a great change took place: the trade routes were again opened, thousands of natives returned, and new houses, some with two storeys in the European style, sprang up in all directions.

Gold mines are worked in Ashanti, and especially in the provinces of Dadecassi and Inquanta, where the rich deposits of Tarkwa are continued towards the north-east. During the rainy season the gold-seekers wash the sands for the precious dust in the very streets of Cumassi itself. The clouds of vultures and other carrion birds have ceased to hover above this city, and its sacred groves and royal necropolis or charnel-house of *Bantama*, formerly girdled round with dead bodies and reeking with human blood. The last sacrifice appears to have taken place in 1882, at the funeral of one of the king's aunts.

In the other Ashanti provinces cities have risen and fallen according to the vicissitudes of peace and war, subsequent to the invasion of the conquering race. *Juabim*, former rival of Cumassi, is still a populous place; *Kokofu*, *Inquanta*, and *Mampong*, lately capitals of vassal states, were almost completely abandoned at the time of Kirby's visit in 1874; *Becqua*, at one time nearly as populous as Cumassi, was also deserted in 1885 in consequence of an outbreak of small-pox.

On the other hand, the more fortunate towns of Akim, in the Upper Prah and Birim basins, have increased in population and wealth. *Insuaim* (*Nsuam*) or *Oba*, capital of West Akim, near the Birim river, has become one of the great cities of Africa; *Soudra*, half a mile to the south, is also a large place, and probably over twenty thousand people are concentrated in a space of about 4 miles round Oba. *Bompata*, capital of Akim-Ashanti, lies on a headstream of the Upper Prah, where it has replaced the now ruined town of *Dwiransa* in the Okwahu uplands. Here also are the picturesque towns of *Wraso* in the wooded hilly districts between the Prah and Volta basins.

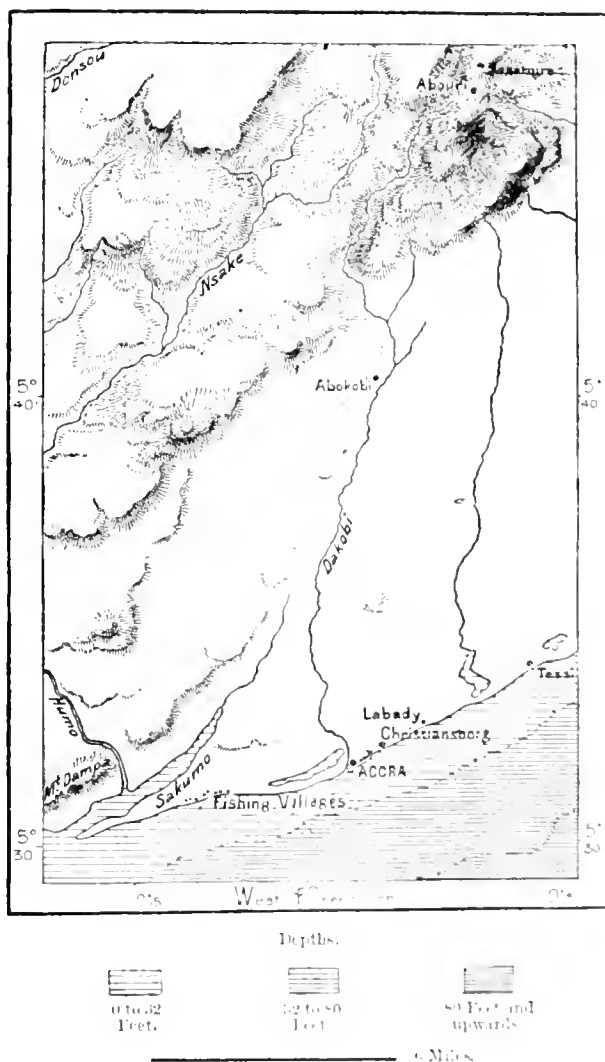
East of Cape Coast follow the seaports of *Anamabu*, *Koromantin*, *Akemfo* or *Salt-Pond*, so named from the neighbouring salines, *Winnebah* (*Simpa*), and 90 miles from Cape Coast, the important town of *Accra* (*Nkran* or *Ga*), commanded by Fort James. Since 1875 the old Danish citadel of *Christiansborg* has been the official capital of the British possessions, but Accra is the chief centre of European life, and the governor resides in the neighbourhood of the fort, which was much damaged by the earthquake of 1862. *Christiansborg*, which presents the appear-

ance of an imposing feudal castle, contains vast cisterns for the supply of the garrison and shipping. In the vicinity the Basle missionaries have founded a technical school, where are trained the best artisans on the whole seaboard between Sierra-Leone and the Gaboon.

Accra is the starting-point of several routes for the interior, and it is now

Fig. 109.—FROM ACCRA TO THE SANATORIUM OF ABORI.

Scale 1:315,000.



proposed to connect it by rail with *Kpong*, on the bend of the Volta, 50 miles distant. Some 24 miles to the north lies the little health-resort of *Abori* (*Aboke*), founded by the Basle mission, amid a forest of fruit trees over 1,300 feet above sea-level. *Akropong*, former capital of the Akwapem state, serves also as a sanatorium for the whites and a centre of instruction for the natives.

Between Accra and the Volta lie the little fishing villages of *Tessi*, *Prampram*, *Big Ningo* (*Fredensborg*), and a few others buried amidst the coco-palms here fringing the coast. The natives are said to have often collected gold on a reef near the shore, but the precious metal is revealed only at certain feasts and through the intercession of a potent fetish.

The Volta basin, which reaches inland far beyond the British possessions, contains some trading centres visited by the Mohammedans of the Niger for the purchase of the coast produce and European wares introduced especially through the Assini and Kinjabo routes. *Bontuku*, on the Tin in Gyaman (Gaman), a confederacy of seventeen "kingdoms," was visited for the first time by Lonsdale in 1882. Since the fall of Cumassi it has become a thriving place, dealing chiefly in gold dust and local cotton fabrics, and inhabited mainly by Wangaras, or Mohammedan Mandingans. In the valley of the Kong, five days farther north, has been founded the new capital, *Hirabo*, in the Mandingan territory between the Niger and Volta basins.

In 1884, Brandon Kirby reached *Quantampoh* (*Kutampo*), the *Tintinpoh* of the Mussulmans, a city situated on a southern affluent of the Upper Volta, 70 miles north of Cumassi. At that time this great emporium contained nearly forty thousand inhabitants, natives of every country between Sierra-Leone and Lake Tsad, all living in separate communities under their respective chiefs. The province of Koranza, between Quantampoh and the Ashanti state, has also received numerous immigrants from the unsettled districts in the south. During a long period of peace it has become a prosperous country, studded with populous villages and doing a profitable export trade in kola-nuts.

*Ateohu* (*Atabuobu*), lying on a grassy plain watered by the headstreams of the Poro and Séné, affluents of the Volta, is capital of the "kingdom" of Brong. It appears to have been formerly a very large place, and still comprises several quarters connected by avenues of shady trees and surrounded by heaps of grass-grown ruins. Its decay is due to the closure of the two trade routes connecting Cumassi with Salaga, and by which gold and kola-nuts were formerly exported to North Sudan.

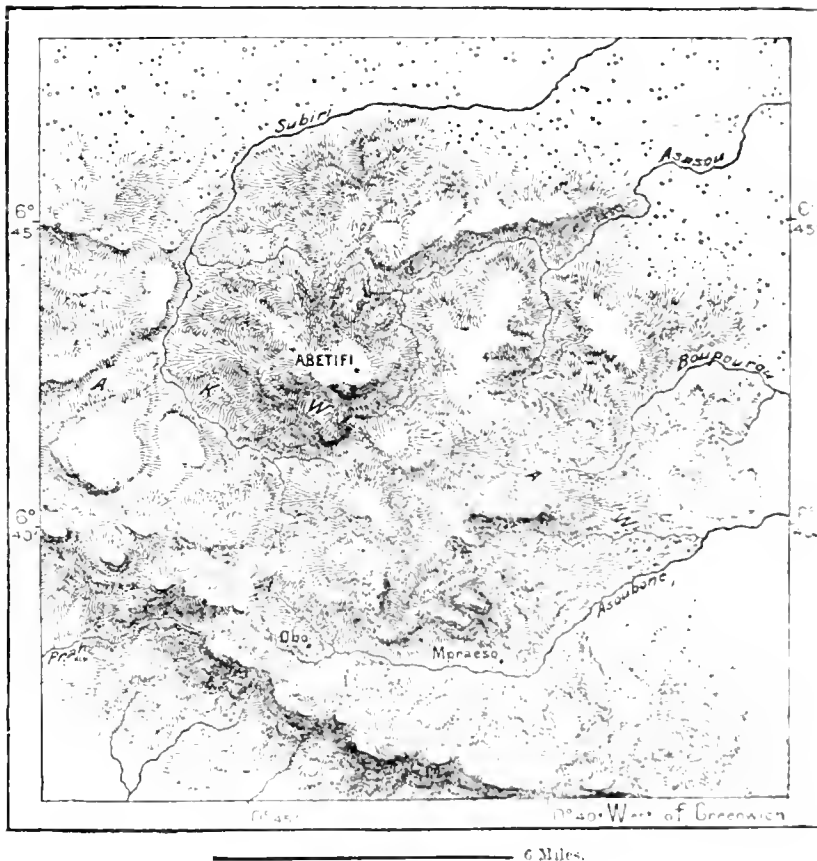
*Salaga*, first visited in 1875 by Bonnat, although much reduced, is still a considerable centre of trade, with a population reduced from twenty thousand in 1877 to nine thousand in 1896. The suppression of the slave trade all along the seaboard has ruined the Salaga dealers in human flesh, and at present the staple exports are cattle and kola-nuts. The town has an Arab appearance with its mosques and schools, its tanneries, weaving, goldsmiths' work, and other industries, all carried on as in North Africa, and the products exposed in the same way for sale in the bazaars.

Some 50 miles to the north-east, and also in the valley of a northern affluent of the Volta, stand *Jendi* (*Yendi*, *Yanda*, *Yené*), another large trading place and capital of Dagomba, a great kingdom which stretches northwards to the Mandingan territory in the direction of the Niger. But the trade of Jendi seems to have been affected by the same causes that have reduced that of Salaga. At present

the chief town in the middle Volta region is *Keté*, till recently a mere suburb of *Krakye* (*Karati*, *Krachi*), which has retained the rank of a capital. *Krakye*, which stands on a bluff 200 feet high opposite the *Séné* confluence with the *Volta*, is a fetish city, whose tutelar deity, the *Denté* or *Odenté*, dwells in a neighbouring cave shaded by a sacred grove where the oracle is consulted by votaries from all quarters. The high-priest of the temple, the most distinguished person in the country, is at the head of a confederacy of petty states formed since the dismem-

Fig. 110.—*ABETIFI MOUNTAINS.*

Scale 1 : 230,000.



berment of the Ashanti empire. By an Anglo-German agreement the whole of this territory, including *Salaga*, *Jendi*, and *Keté*, forms a neutral zone of quadrilateral shape between the German and British hinterlands in the upper *Volta* basin.

Every town in this region has its fetish, whose power increases or diminishes with that of the community itself. The genius of *Warapong*, who is enthroned on the table-mountain of *Sia*, some 60 miles south-east of *Krakye*, is an evil spirit who demands human victims, and to whom a man was, till recently, immolated every year. To the north-east lies the extensive but thinly peopled land of *Busso*, that is, "highlands," whose two capitals, *Sade* and *Dabissi*, have each a very powerful





sanguinary "customs," and *Kpong*, favourably situated on a great bend of the Volta, which is here navigable and connected by a trade route with Accra. Kpong is the port of the little state of Krobo, whose capital, *Obumassi*, lies on the Accra route at the foot of an isolated hill rising 820 feet sheer above the surrounding plain. On this acropolis and sacred mountain of the nation nearly all the Krobo girls are educated for six years under fetish priests and priestesses.

Below Krobo follow, on the right side of the Volta, the towns of *Battor*, *Aggravi*, governed by a fetish priest, and near the bar the ports of *Ada* (*Adla*) and *Riverside* (*Adrafo*). To overawe the lawless populations on this part of the coast, the colonial Government has placed a strong garrison in *Quittah* (*Kita*), the old Danish *Fort Prindsenstein*, near Cape Saint Paul, between the sea and lagoon.

#### AGRICULTURE.—INDUSTRIES.—TRADE.—ADMINISTRATION.

After long industrial and commercial stagnation, the coast populations have lately made rapid progress, despite the forebodings of the proprietors whose slaves were emancipated and whose "pawns" (debtors) were released after the Ashanti war. The outcry raised by the spectacle of soldiers purchased as captives and of thousands of enslaved female porters accompanying the British troops, resulted in the formal abolition of slavery in 1874. Since then the natives work more willingly for Europeans, and the extent of cultivated land has considerably increased. In many places the palm forests have been replaced by regular plantations, and more care is now bestowed on the coffee and tobacco crops. The cacao and other alimentary plants have been introduced from America; attention is given to the production of caoutchouc, especially in the Krobo country, while the natives of Krebi already raise large quantities of cotton.

The industries have also been developed, thanks to the numerous artisans trained by the Basle missionaries and to the Mohammedan craftsmen who have settled in all the towns along the banks of the Volta, and who already occupy a whole quarter in Accra. But jewellery, formerly the staple industry, received a great blow by the destruction of Cumassi. Amongst the treasures taken from the King of Ashanti and removed to England may be admitted many remarkable objects, such as bracelets, rings, gold and coral ornaments, chased metal plates, and fantastic animals whose forms remotely suggest those of the old Egyptian jewellery.

Notwithstanding the name of the country, palm-oil rather than gold forms the chief article of export. Hence, like the Bonny and Calabar estuaries, the creeks along the Gold Coast also take the name of "oil-rivers." The imports are mainly restricted to cotton goods and brandy, the chief aim of European "civilisation" apparently being to clothe and intoxicate the natives. In the course of ten years the whole trade of the Gold Coast gradually rose from £640,000 to £1,200,000.

The administration of the Gold Coast, which formerly included Lagos on the Slave Coast, is entrusted to a governor appointed by the Queen, and assisted by a legislative and executive council composed of the chief functionaries and

European traders. After the Ashanti war the seat of government was removed from Cape Coast to Christiansborg-Accra. Each colonial district is administered by a magistrate, and the tribal chiefs are gradually being transformed to justices of the peace with power to settle all minor matters according to local usage, while affairs of importance are referred to the English court.

The military forces consist chiefly of Fantis, Haussas, and Kroomen. Several unsuccessful attempts have been made to enlist troops in the states north of Ashanti, the natives of which regions refuse to migrate towards the seaboard. The revenue is derived exclusively from imposts levied on imports in the twenty-five coast towns opened to foreign trade.

The colonial administration, which is slowly displacing that of the tribal chiefs, has in no way modified the limits of the annexed states now reduced to provinces. Nor does it interfere directly in the affairs of the conterminous states beyond occasionally sending visitors or agents, whose advice is usually accepted. Formerly all the Upper Volta basin formed part of the Ashanti empire; but these agents have pursued a policy of political dismemberment, and numerous so-called "independent" kingdoms have been established in the regions coming within the influence of the British authorities. But farther inland there still exist some absolutely independent states, such as Gyaman, Dagomba, and Busso.

In the Appendix is given a table of the colonial districts and petty states conterminous to the Gold Coast, together with their chief towns and absolute or approximate populations.

#### THE SLAVE COAST.—TOGO, POPO, AJUDA, BADAGRY, LAGOS, DAHOMEY, YORUBA.

The section of the African seaboard lying between the Volta and Niger deltas describes an extremely regular slightly curved arc of a circle masking an inner shore-line, from which it is separated by intervening lagoons and backwaters. To this region, washed by the Bight of Benin, still clings the sad name of the Slave Coast, a reminiscence of the traffic in "black ivory" which flourished on the shores of these cursed lagoons from the first years of the Portuguese discovery down to the second half of the present century. Nowhere else were the slavers able to conduct their operations in more open defiance of the cruisers. The beach is defended by formidable breakers, where the most skilful pilots alone can dare to venture; the mouths of the estuaries are invisible from the sea, and the inner bays offer a thousand secret inlets on the densely wooded shores, in which it was easy to conceal the human merchandise. The caravans of dealers from the banks of the Niger, the troops escorting gangs of captives forwarded by the kings of Dahomey and Yoruba, were able to consign their victims under the shelter of the gloomy forests without exposing themselves on the open seaboard.

But while all the Western nations were glad to have a share in this profitable business, no foreign power except Portugal made any official settlements on this coast before the year 1851, when the English occupied Lagos and made it the headquarters of their operations for the suppression of the traffic in the Bight of

Benin. In 1863 France purchased the territory of Porto-Novo, which was soon after abandoned, and again occupied by her in 1883. Next year the Germans took possession of the Togo district immediately east of the British territory on the Gold Coast. But Portugal having surrendered all her claims to France in 1886, this seaboard is now shared only by three Powers—Germany, which holds Togoland; France, which has annexed the whole of Dahomey; and England, which occupies Yorubaland, with Lagos and Benin.

Few travellers have ever penetrated far into this region, except towards the east in the direction of the Niger, where the routes of explorers intersect each other at several points. The natural limits of the country are clearly indicated on the west by Cape St. Paul and the lagoons fed by the waters of the Volta, on the north-west and north by the uplands which form a continuation of the Akwapem ranges, on the north-east and east by the divide between the Niger basin and the streams flowing to the Atlantic. The whole region may be approximately estimated at about 70,000 square miles, with a total population of probably not less than six millions. But no trustworthy returns have yet been made except for the British and German Coast districts, while the respective hinterlands have scarcely yet been everywhere accurately determined.

#### PHYSICAL FEATURES.—RIVERS.

From the sea no hills are anywhere visible beyond the slight pyramidal eminence at Badagry. Large timber is also rare, nor are any dunes developed on this coast, owing doubtless to the north-east winds, which carry seawards the sands washed up by the waves. But in the interior, beyond the intricate coast lagoons, the land rolls away in gentle undulations from 200 to 230 feet high in the direction of the inland plateaux. North of the isolated mass, 2,700 feet high, forming the culminating point of Dahomey, the Busso ranges rise to considerable altitudes, according to Skertchley terminating in the Mahi country with peaks over 6,700 feet high, falling rapidly towards the northern steppes, and descending in terraces on the southern side. From a summit ascended by this explorer the range, apparently the highest in Africa south of the Atlas and west of Abyssinia, was distinctly seen stretching away in the direction of the Volta. Some of the chief crests consist of granitic domes, some of columnar basalt pyramids, and others again of trap formations piled up like frowning fortresses or else resembling isolated craters. In one of the valleys were seen accumulations of débris presenting all the characters of moraines, and here were also noticed rocks striated by ice. (Skertchley, *Dahomey as It Is*.)

None of the streams flowing seawards between the Volta and the Niger are of large size, their parallel basins being everywhere confined within narrow limits. During the dry season most of them fail to reach the sea, discharging into the coast lagoons without being able to force a passage through the intervening beach. But after the rains the overflow of the lagoons finds an exit, breaking the shoreline now at one point now at another. The channel at Lagos, forming the outlet

for a considerable coast stream and for lagoons fed by several affluents, alone remains open throughout the year. The river Ogun, the largest of these affluents, rises probably some 180 miles inland, and receives numerous tributaries before leaving the uplands. The Great Popo Channel is also generally open, while at other points the natives frequently cut passages for their boats between the lagoons and the sea.

Most maps represent the Togo district as almost entirely occupied by Lake

FIG. 112.—SHORE-LINE EAST OF LAGOS.

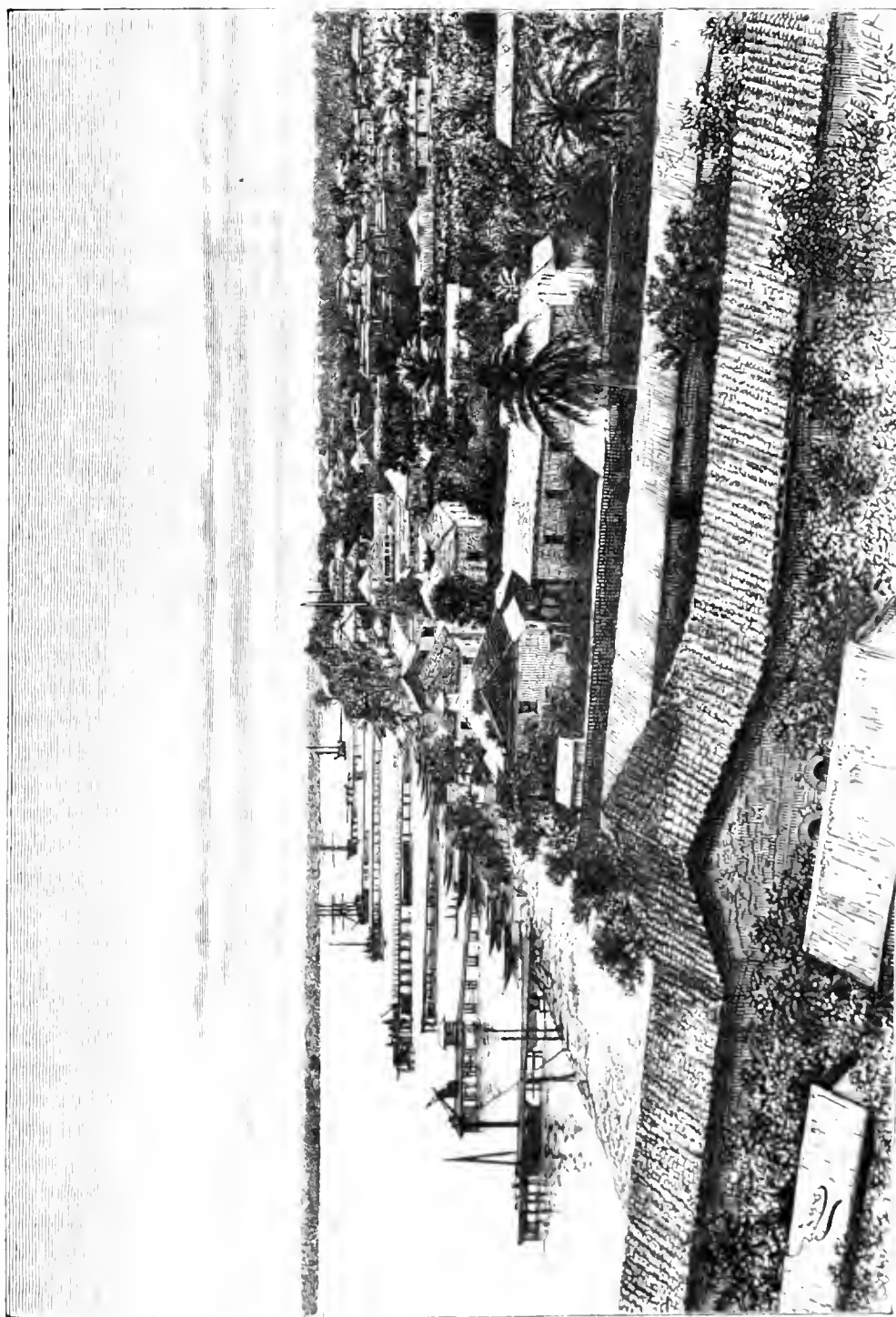
Scale 1 : 750,000.



Avon, an inland sea 1,200 square miles in extent, and so called from the English vessel which surveyed this coast in 1846. But the size of the Haho, as the natives call it, from its chief influent, has been strangely exaggerated, for it is scarcely more than 6 miles long in any direction. The Nokhwé, or Lake Denham, west of Porto-Novo, is also much smaller than it appears on the maps, while the largest of all these coast lagoons is Ikoradu, which with its numerous ramifications has given the Portuguese name of Lagos, or the "Lakes," to the town at its seaward

entrance. These lagoons form a continuous waterway, which might be easily

Fig. 113—LAGOOS—EUROPEAN QUARTERS.



made navigable all the way from the mouth of the Volta to the Niger delta

Steamers already ply for a distance of about 40 miles between Badagry and Lagos, and in 1876 one of these ascended to the neighbourhood of Abomey, by the river Whemi (Owo), which has a mean depth of 13 feet, and falls into Lake Denham north of the Kotonu channel.

In its flora and fauna the Slave Coast forms a simple continuation of the Gold Coast. Its climate, with a mean temperature of about 78° F. and two dry and two wet seasons, is regarded as the most salubrious on the whole seaboard between the Senegal and the Congo. Europeans have hitherto escaped the attacks of such epidemics as yellow fever, small-pox, or typhus; but they have still to dread the marsh fevers, especially during the early days of their residence in the country. The most dangerous period is the close of the heavy rainy season, when the ground reeks and the atmosphere is charged with miasmatic exhalations.

#### INHABITANTS.

Notwithstanding certain dialectic differences, the natives of the Slave Coast present marked affinities to their Fanti and Ashanti neighbours. Apart from the Minas, who dwelt formerly west of the Volta, all the populations between that river and the Ogun belong to the Ewe (Ewhe, Azighe) family, from whom the whole region takes the name of Eweme, or "Land of the Ewe." The land west of the Ogun is held by the Yorubas (Yaribas), here collectively known as Nagos.

The Ewe appear to form five distinct linguistic groups; the Anlo (Anglo or Anglawá) on the Gold Coast frontier; the Krepi, of Anfwe speech, north and north-east of the Anglo; the Jeji, of Ajuda speech, east of the Anglo and Krepi; the natives of Dahomey, in the interior; lastly, in the extreme north, the tribes speaking the Mahi or Makhi, purest of all the Ewe languages.

All the Ewe peoples are of tall stature and well-proportioned, with more regular features and fairer complexion than the Wolofs. Many of the natives of the interior are noted for their yellowish colour and red hair, probably a sort of albinism rather than the result of crossings with Europeans. Others again on the west coast, collectively known as Minas, are descended from Negroes and half-castes imported from Brazil, and in the public estimation these take the foremost rank for physical strength, moral qualities, and love of freedom. They are also active traders, who compete successfully with Europeans, and who by their family alliances with the natives are steadily acquiring a numerical preponderance over all other foreigners. Under the influence of this new element the old ethnical divisions are gradually disappearing. The family names of Souza, Almeida, Andrada, and Albuquerque have become very common, and Portuguese was for some time a rival of English as the current language for international relations. Near the Gold Coast English prevails, but Portuguese is chiefly spoken at Ajuda, though no longer taught in the local schools.

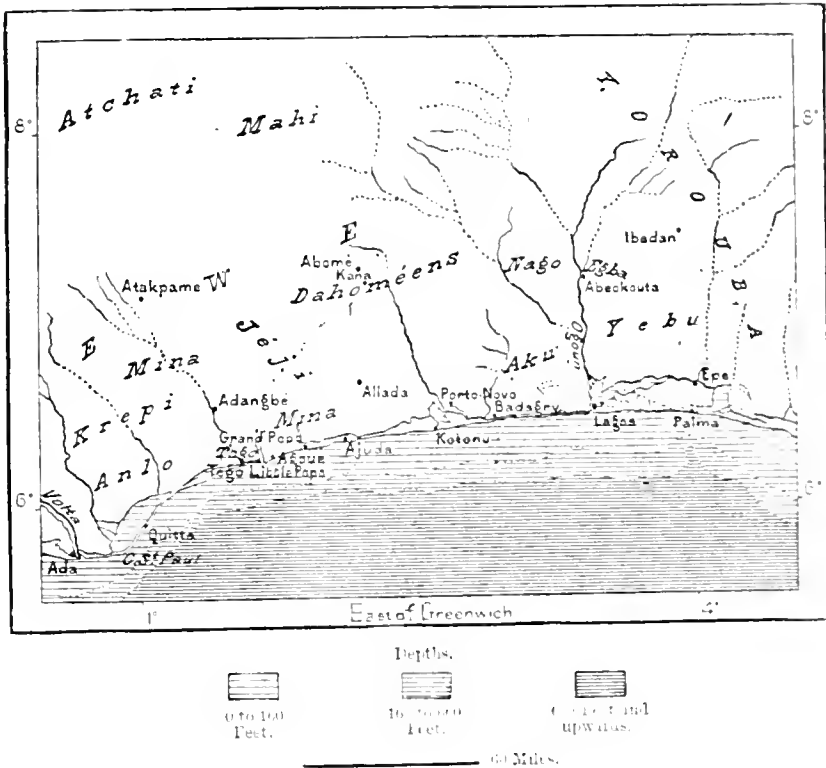
The most powerful branch of the Ewe group are the Fons, now known as Daumas or Dahomeys, from the kingdom founded by them to the north of Ajuda in the first half of the seventeenth century. Although proud of their warlike

deeds and conquests, the Fons are distinguished by great intelligence and a remarkable facility for acquiring foreign languages. According to Broca's measurements, they take a foremost place amongst the races of mankind for cranial capacity. Nevertheless, for the abject slavery of its subjects and the tyranny of its rulers, the late kingdom of Dahomey bore a striking resemblance to that of Ashanti.

The sovereign was a god; his power was limitless, the life and fortunes of his subjects were at his mercy; he was master of all the living, heir of all the dead. Formerly infants were removed from their mothers and brought up in other families in order to prevent the people from forming any ties of affection except

FIG. 114.—INHABITANTS OF THE SLAVE COAST.

Scale 1 : 4,500,000.



towards their sovereign. Being exempt from the ills that other mortals endure, this potentate was supposed to need neither food nor drink, and was formerly regarded almost as an invisible spirit, the delusion being fostered by the practice of taking his meals apart and hearing petitions from behind a screen. He maintained an army of "amazons" commanded by the *dah*, or queen, who enjoyed the right of life and death within the limits of the harem, and whose sons were alone recognised as royal princes. Some of these women were state dignitaries, and when royalty condescended to take counsel, his wives consulted with the *menge*, or prime minister, and other high officials. The amazons rivalled their male companions in arms in prowess, contempt of death, and cold-blooded cruelty. Their

war dances were performed with a precision unequalled by the best-trained ballet corps, and Skertehley describes one of these military displays with dances, songs, and sacrifices, which lasted no less than sixteen hours.

Human victims were formerly immolated wholesale at the graves of the king and powerful chiefs, and, as in India, wives often volunteered to join their husbands in the other life. This continual flow of blood had accustomed the people of Dahomey to scenes of incredible cruelty. Travellers describe in detail the massacres, tortures, crucifixions, and arrangement of the dead bodies in artistic groups along the avenues. One of the yearly ceremonies consisted in filling a great reservoir left open for those who preferred to commit suicide; while the terrible Draconic laws always supplied victims in abundance for the national "customs." Cannibalism also was recently practised, the bodies of the slaughtered being roasted and devoured smoking hot.

At the same time by most of the natives the prospect of a violent end was little dreaded. The belief in immortality was so absolute, that to them death seemed a mere passage from the shadow of a dream to a real and everlasting life. When the king, "cousin of the leopard," wished to hold converse with his ancestry, he despatched the first to hand as an envoy to the far-off world, and the kindred of the dead felt highly honoured at their sovereign's choice. But the struggles of rival creeds for supremacy must inevitably tend to weaken this simple faith in an after life, and thus enhance respect for the earthly existence. The boy or girl formerly sacrificed at every grave is already replaced by a kid, and the wholesale massacres attending the annual customs have entirely ceased since the French conquest of Dahomey in 1894.

The extensive region lying between Dahomey, the Bight of Benin, and the Niger watershed, is peopled by the Eyos, Iktus, Egbas, Yebus, and other kindred tribes collectively known as Nagos, or else Yorubas, from the name of the country and the current speech. They differ little from their Ewe neighbours, presenting the ordinary type of the coast Negroes, although of somewhat lighter complexion, with less prognathous jaw, and thinner lips. Each tribe is distinguished by a system of tattooing, which is a real national emblem uniformly executed on every individual. All travellers describe the Yorubas as a gentle, kindly people, faithful to their word, extremely docile, artless and sincere, and ever less mindful of injuries than of favours. On the frequented highways sheds covered with foliage (*arqjehs*) are set up at intervals for the convenience of wayfarers, who here find shelter, water, and wine, and who, if so minded, may deposit a few cowries in return.

The sociable Yorubas are almost everywhere grouped in urban communities, so that populous towns are numerous in their territory. Even the peasantry prefer to reside in the towns, willingly making long daily walks between their homes and their farms. On these they raise large quantities of maize and yams, the great staples of food, besides millet, manioc (tapioca), sweet potatoes, pulse, ground-nuts, various species of vegetables, bananas, and other fruits. Agriculture is their chief industry, and they display great skill in extracting the palm wine



from the *Raphia vinifera*, which they climb with surprising agility by means of a rope attached to the stem and brought round the body, shifting it up or down by a simple movement of the arm. There are no large estates, the land being

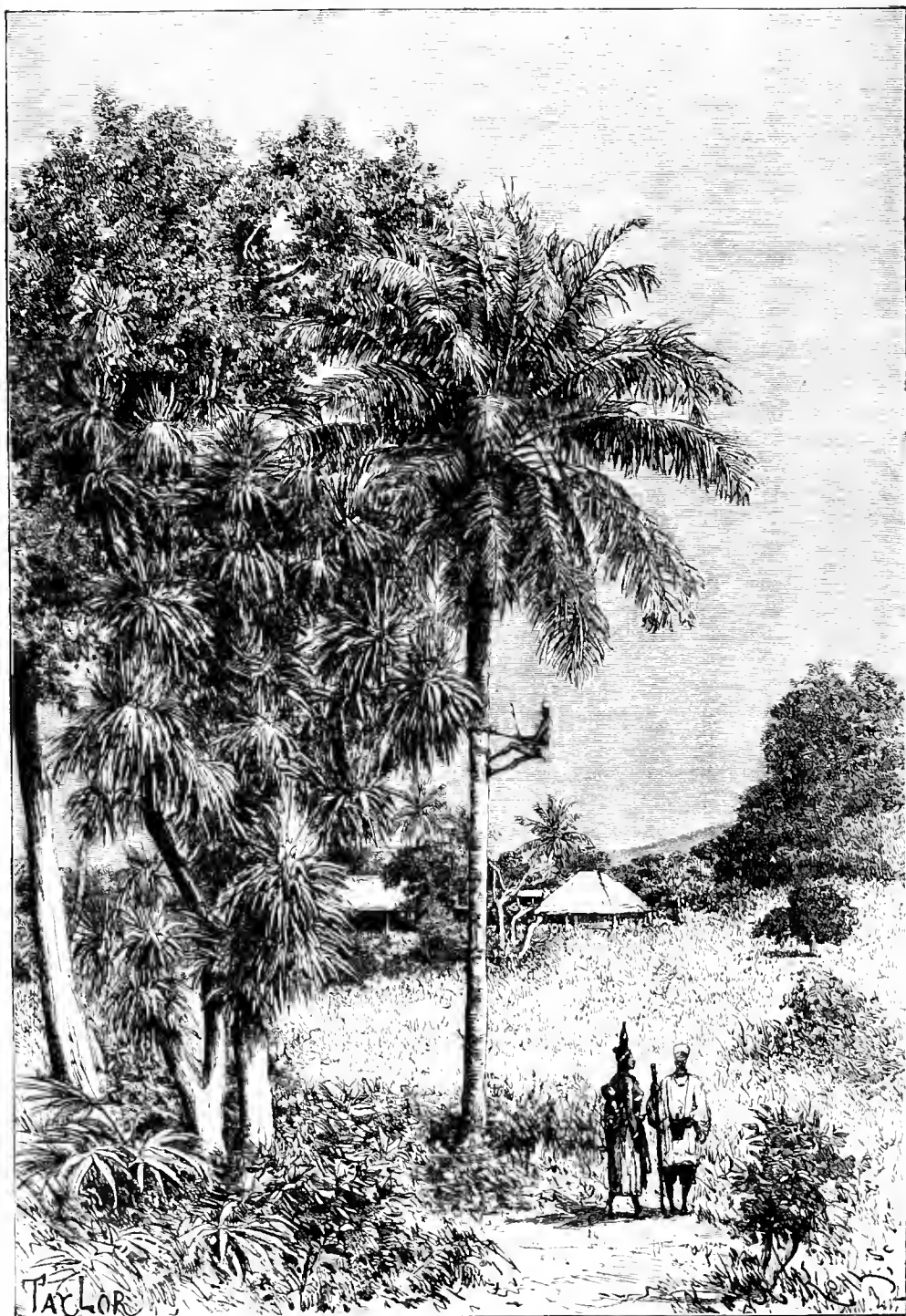
Fig. 115.—A MOHAMMEDAN YORUBA TRADER.



regarded as belonging to all in common, or rather to the State for the benefit of all. Hence the actual cultivator enjoys the fruits of his labour, and when he ceases to work, the land reverts to the State, being then at the disposition of the first comer willing to occupy it.

The Yorubas are also clever artisans, and every village has its potters, smiths,

FIG. 116.—ISLAND SCENERY, SLAVE COAST.



tanners, saddlers, weavers, and dyers. They make their own agricultural imple-

ments, but the white and blue cottons formerly exported to Brazil have been driven out of the market by Manchester goods. As builders the Yorubas excel all natives of Africa, some of their palaces comprising as many as fifty rooms. The doors and friezes of the verandahs are embellished with carvings representing scenes of war or the chase, fantastic animals and religious symbols. They have a special veneration for the furniture made of sassa, because this wood often creaks and moans, especially at night. Although unacquainted with letters, they are said to have had little knotted cords for recording events, like the Peruvian quippos.

The power of the Yoruba obbas, or hereditary kings, is limited by usage, while each town has its semi-independent chief, appointed by the sovereign, and enjoying royal prerogatives. Chiefs and governors alike are assisted by councils of the notables, and on great emergencies the whole people are occasionally summoned to a general national assembly. Since 1890 Yorubaland has been brought under the British suzerainty, which is accepted by all the petty chiefs, who have everywhere agreed to discontinue human sacrifices.

As in Dahomey, the kings were formerly followed to the grave by a numerous suite of ministers, women, and slaves, the latter massacred by force, the former politely invited to drink the poisoned cup. Belief in ghosts is universal, and the most minute precautions are taken to prevent the return of departed friends. Their arms are buried beyond the gates of the city, and are thus concealed from the owners who might happen to return at night from the other world. The bodies of children are thrown away in the forests, all premature deaths being ascribed to the evil spirits, who are thus circumvented.

But the old nature-worship has been greatly modified during the last four hundred years by the influence both of the Europeans and of the Filani (Fulahs), and other Mohammedans advancing from the interior. The Obba-el-Orûn, or "King of Heaven," has been gradually confounded either with the God of the Christians or the Allah of the Mussulmans. He is even called Obba-t-Alla, or "Lord Allah," and has been diversely associated with the tribal traditions and missionary legends. Certain rites practised in several places along the coast are evidently of Catholic origin, introduced by the Portuguese or Brazilians. But all forms of religion are gradually giving way to Islam, which is everywhere preached by the traders from the banks of the Niger.

#### TOGOLAND

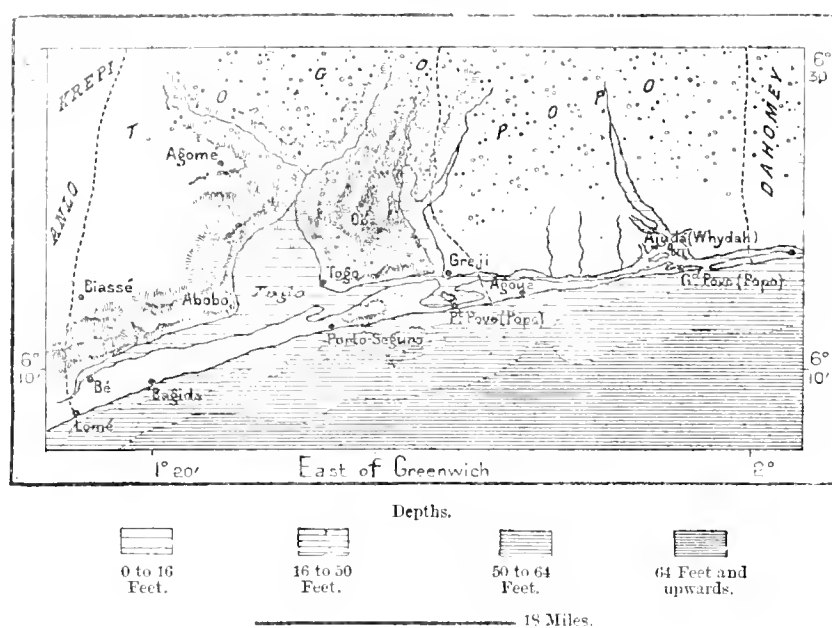
The previously unknown term Togo suddenly acquired a certain political importance when it was adopted as the name of the western district on the British frontier occupied in 1881 by the Germans. Since then the settlement has gradually been extended for 32 miles along the coast, absorbing Little Popo, Porto Seguro, and Bagida. The hinterland between the British and French territories on the Gold and Slave Coasts has also been advanced beyond 16° N. lat.

so that the German colony of Togoland, as recognised by various international treaties, comprised in 1899 an area of over 23,000 square miles, with an estimated population of 2,500,000. Inland the country is hilly, with long stretches of scrub, woodlands, and dry plains, alternating with arable tracts which yield rich crops of maize, yams, tapioca, and bananas, while oil-palms, rubber, and dye-woods abound in the forests.

*Togo*, the capital, comprises five villages standing close together in a forest of cocoa-nut palms on the north side of the chief lagoon. *Be*, the fetish town of the Togo natives, lies much farther west, near the British frontier, and within 2 miles of the coast. The neighbouring village of *Biassé* is inhabited chiefly by manufacturers of fetishes and earthenware. *Somé*, the chief market in Togo, is quite a

Fig. 117.—TOGO DISTRICT.

Scale 1 : 854,000.



new place recently founded on the coast close to the English possessions. On the same coast, but farther west, are *Bagida* (the Bagdad of some maps), and *Porto Seguro*, which was founded by immigrants from Brazil, and which had some importance before the abolition of the slave trade in 1863.

### Popo.

The kingdom of Little Popo, east of Togo, was formerly a French protectorate, but was transferred to Germany, in the year 1886, in exchange for some places on the South Senegambian coast. *Popo*, as it is called by the Germans, consists, like Togo, of two distinct zones, the seaboard on which are situated the trading places, and the much better cultivated region beyond the lagoons.

*Little Popo*, the Aneho and Plavijo of the natives, was an old Portuguese settlement dating from the end of the seventeenth century. Many of its inhabitants come from the Gold Coast, and still speak the dialect of their ancestors. Depending politically on the king of *Gréji*, which lies on the north side of the lagoon, Little Popo had in 1884 no less than three chiefs, all claiming the title of king, and each supported by one or other of the foreign and native nationalities. But the German authority is now everywhere recognised as far east as the French protectorate of Dahomey.

*Agwé* (*Ahwey*, *Ajigô*), 6 miles east of Little Popo, founded in 1824 by the Minas, belongs politically to France, under whose suzerainty it has become a place of refuge for the persecuted of all the surrounding regions. All races and religions are thus represented in this republic, which is wrongly described as a kingdom, its chief magistrate being charged only with the executive power. Round about are grouped several other petty states, constituting a republican confederacy and including Abanankem, bearing the French name of Baranquère.

*Great Popo*, the *Pla* of the natives, also founded by fugitives, is a mere group of scattered huts, which, thanks to its favourable position on a channel always open to the sea, has developed a considerable foreign trade. French influence is dominant in this thickly peopled district, which with Agwé has an estimated population of 120,000.

#### DAHOMÉY.

East of Great Popo begins the Dahomey territory, guarded by the important town of *Glehweh*, known to Europeans by the various names of *Foto*, *Heredah*, *Whydah*, *Wida*. The old writers called it *Juda*, and its inhabitants were said to be Jews, while the neighbouring river Allala, whose real name is Efra, became the Euphrates. During the flourishing days of the slave trade, from sixteen to eighteen thousand were annually transported from *Ajuda*, as the Portuguese called this place, which at that time had a population of thirty-five thousand. The tutelary deity of Whydah is the snake, and its famous fetish temple is served by priestesses, called "mothers" or "sisters" of serpents, and recruited by the abduction of young girls on feast days.

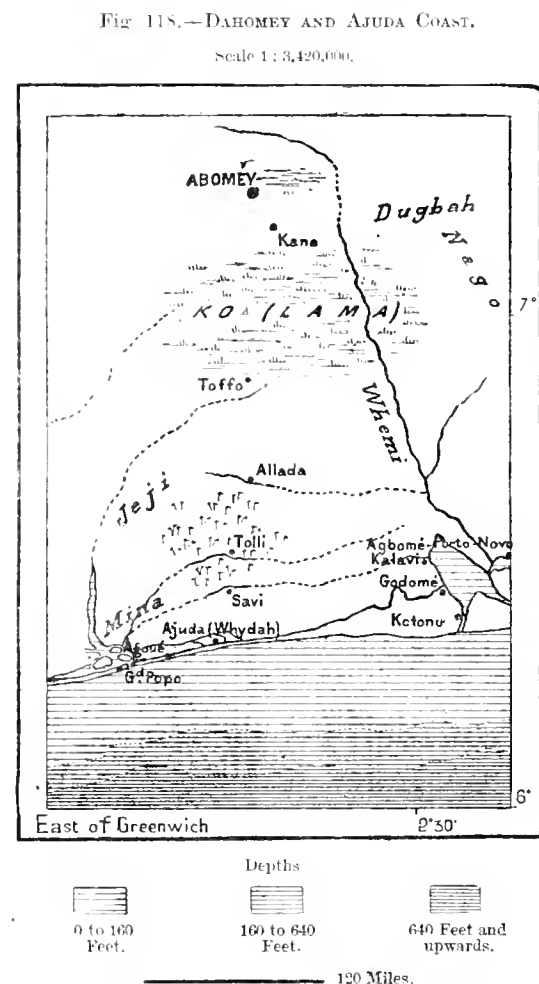
Whydah belonged by right of conquest to Dahomey since 1725, when it received its name of *Glehweh*, or "The Farm," indicating the part it played in supplying the capital with provisions. But the French occupation of this place, together with the stations of *Kotonu* and *Porto-Novo*, all claimed by Behanzin, King of Dahomey, led to open hostilities in 1890. These were followed by the war of 1892-3, which resulted in the occupation of the capital, Agbomey, by Colonel Dodds, the complete overthrow of the Dahoman power, the flight and subsequent capture of Behanzin, and the annexation of the whole country to the French possessions on the Slave Coast. The protectorate of Dahomey, whose limits towards Togoland were defined by the Franco-German treaty of July, 1897, and towards the British

possessions on the Slave Coast by the Anglo-French treaty of June, 1898, comprises an area of about 14,000 square miles, with a population (1899) about 560,000.

On the route to Agbomey the first station is *Savi* (*Xavier*), former capital of the kingdom of Whydah, whose sovereign was said at one time to command two hundred thousand troops. Beyond *Savi* the route passes by *Tolli*, and *Allada*, the ancient *Adara*, also formerly the capital of a state, and still regarded as the metropolis of Dahomey, one of the royal titles being "Lord of Allada." Yet the place

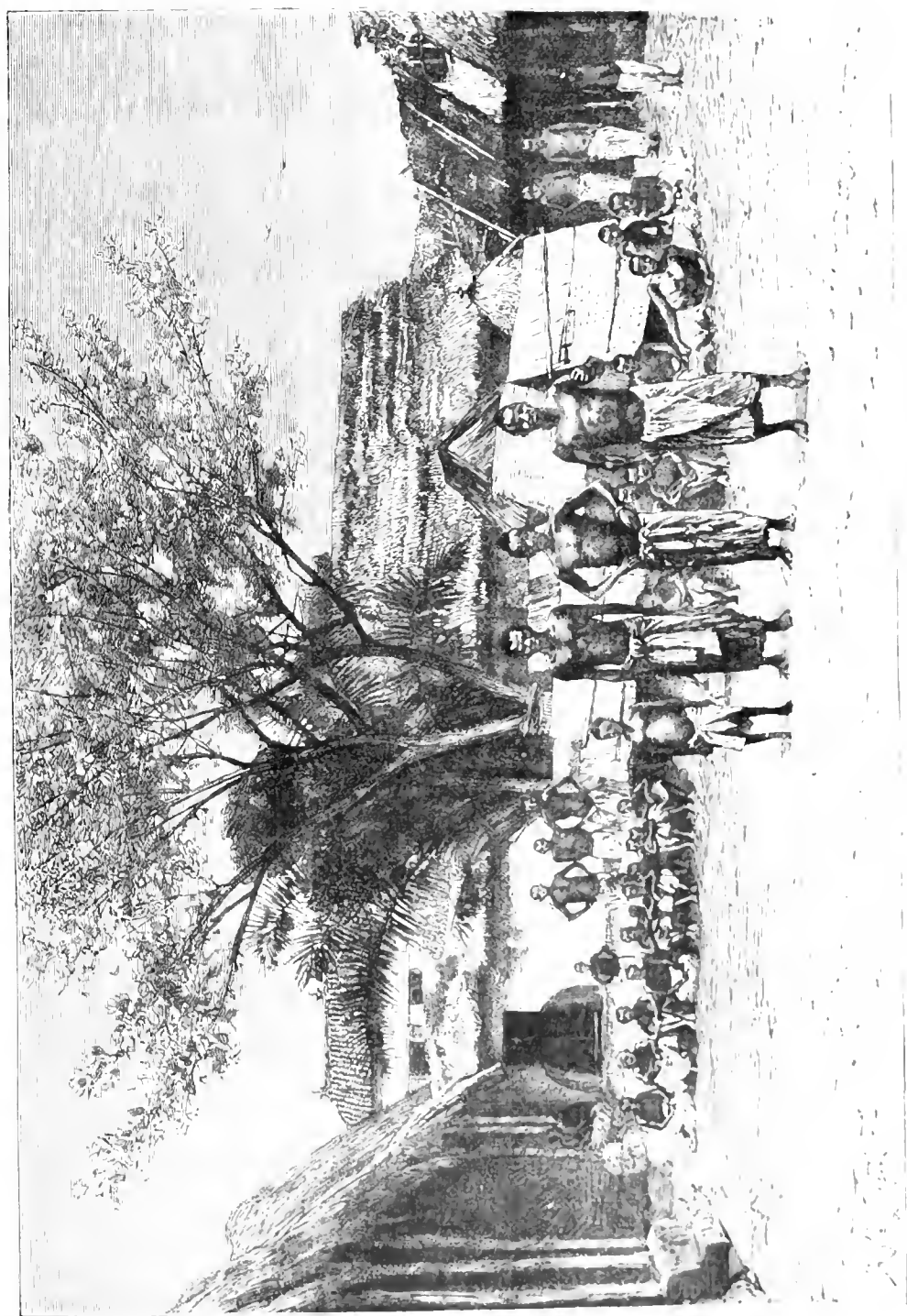
was ruined by the Dahomey people themselves in 1724, when they conquered the seaboard route and massacred the inhabitants of Allada.

The natural limit which formerly separated the states of Allada and Dahomey is the extensive swamp of *Ko*, or *Lama*, easily traversed in the fine season, but almost impassable during the rains. In 1784, the most difficult points were bridged and the road partly raised, but soon again subsided. North of *Ko* begins the true continental coastline, and here, on a terrace over 1,000 feet above the sea-level, but easily accessible from the south, stands *Abomey* (*Agbomey*), capital of Dahomey, a "City within an enclosure," as the name signifies, with monumental gates, deep ditches, and a thick-set wall of thorny trees. *Abomey* covers an extensive area, but most of the enclosed space consists of gardens and ruins, while the aggregate of huts formerly known as the King's palace had a circumference of two miles. The wall of this residence



was stuck all round with human heads or skulls, eloquent witnesses of the royal power. But even before the French occupation, the butcheries required by the periodical customs had ceased, and when the conquerors entered the place nothing was to be seen except the iron spikes on which once stood the hideous trophies.

The population of Abomey varies with the migrations of the court between the official capital and *Kana* (formerly *Kana-Mina*, or *Calmina*), a summer residence lying in a fever-stricken depression between the hills, and resembling a rural district dotted over with houses, rather than a city in the proper sense of the term.



PORTO NOVO—GROUP OF NATIVES.





Both places are connected by a fine highway, 100 feet broad and 7 miles long, lined all the way with magnificent trees. In the neighbouring scrub reigns a phantom king, the double of the true sovereign, with his palace, his courtiers, his amazons, and his budget. In his name are levied the taxes, and to him are attributed all grievances, while the actual king takes the credit and receives the public thanks for all beneficent deeds.

North of Dahomey proper, in the province of Mahi and the territory of the Dassa people, follow the important market of *Zeng-Nuni*; the picturesque town of *Zoglogbo*; Logozabi, situated in a delightful region of hills, woods, and streams crossed by suspension bridges; *Savata*, former capital of the Mahi country; *Jallahu*, surrounded by scattered granite blocks, compared by Duncan to Stonehenge. These Dahomey highlands, which have been visited by many travellers since the French conquest, differ from the low-lying plains in their climate, natural history, and inhabitants.

#### PORTO-NOVO.

East of their extensive protectorate of Dahomey, the French possess another *enclave* on the coast, the petty native state of *Porto-Novo*, which was constituted at the beginning of the eighteenth century by the foundation of the town of *Houibonnu*. By its founder, a son of the King of Allada, or Ardra, it was also called *Little Ardra*, but is known to the present inhabitants by the name of *Ajashey*. The territory of Porto-Novo, with a coastline of about 24 miles, is estimated at 760 square miles, and the population at one hundred and fifty thousand souls. The town having been bombarded by the English in 1861, the king placed himself under the protectorate of France in 1863, which first occupied, then abandoned, and definitely re-occupied the place in 1882, attaching it to the government of Senegal.

Porto-Novo, which is exceeded in population only by Lagos on this coast, forms a group of villages on the north side of the lagoon which communicates with the Badagry and Lagos rivers. The royal palace, which is approached by a fetish gate embellished with rude sculptures of tutelary deities, was surrounded so recently as 1875 by decapitated bodies and festoons of human skulls. A considerable trade is carried on with the northern towns of *Aggera* and *Sakctey*, and with the interior as far as the banks of the Niger. In Porto-Novo the unique administrative arrangement consists of two sovereigns, reigning by day and night alternately. Each has the right of inflicting the penalty of death on his colleague, if found abroad when out of office.

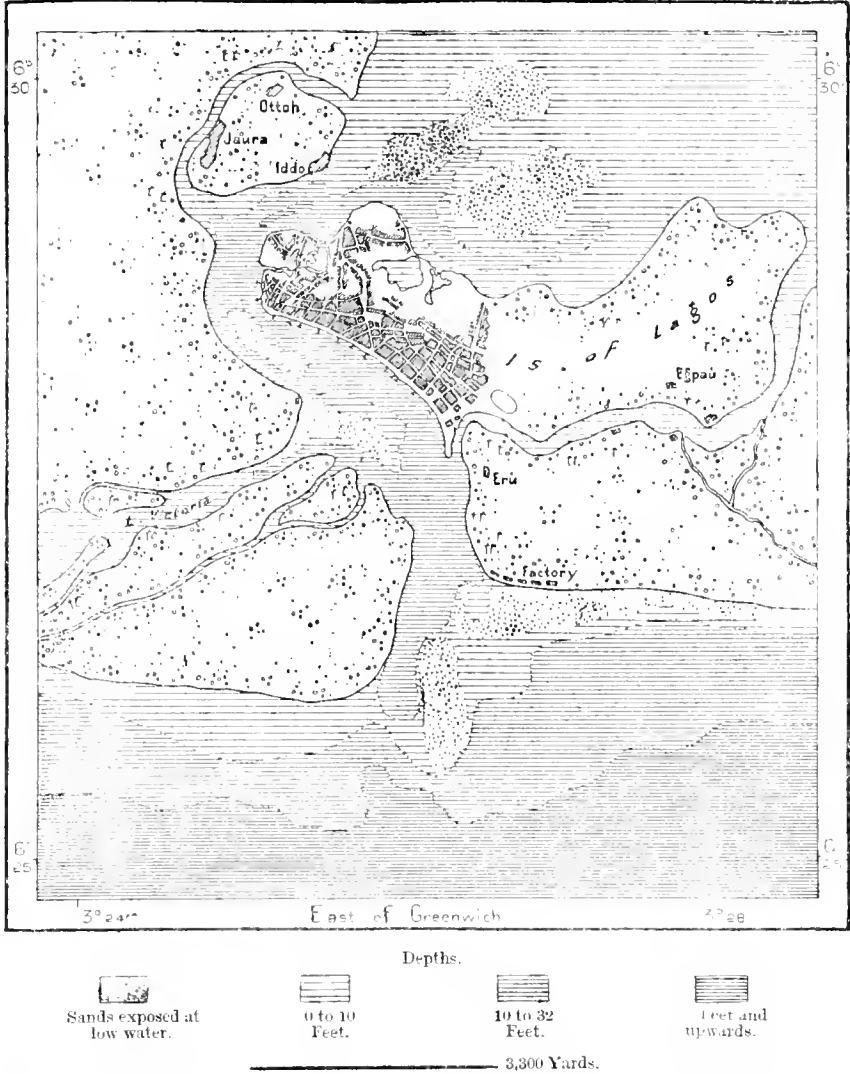
*Kotonu* or *Appi*, the seaport of Porto-Novo, lies to the south-west, on the channel where converge the navigable arteries of Lake Nokhwé. This place, which formerly belonged to Dahomey, and was consequently claimed by the Portuguese, was finally ceded in 1885 to France, which soon after also acquired the two neighbouring towns of *Godomey* and *Aghomey*, *Ku u*. The villages of *Atatona* and *Ahwanzoli* are built on piles in the middle of the lake, like the old lacustrine dwellings of Switzerland.

## BADAGRY AND LAGOS.

*Badagry*, on the north bank of the Ossa, here 550 yards wide, is the first English town met on the Slave Coast going eastwards. It was formerly the capital of a kingdom, and the largest slave market on the whole seaboard. Richard Lander

Fig. 119.—LAGOS.

Scale 1 : 30,000.



relates that, at the time of his visit in 1830, the supply far exceeded the demand, and the old and infirm were then got rid of by being thrown to the sharks. Others, reserved for the sacrifices, had their hearts torn out, which were eagerly devoured by the king, his wives, and chiefs. Lander himself had to drink the poisoned cup to prove his innocence of a crime, but escaped by taking a timely emetic.

In the basin of the Okpara river, north of Badagry, are the protected kingdoms of Ado, Pokra, and Okéadan, which formerly suffered much from the incursions of the Dahomey people.

On an island in the Ossa, 40 miles east of Badagry, stands *Lagos*, the "African Liverpool," capital of the British possessions and the wealthiest city on the West African seaboard. Lagos occupies an extremely advantageous position about the centre of the Bight of Benin, and at the converging point of several inland routes. Through the navigable river Ogun it communicates with the great city of Abeokuta, and commands the western outlet of the Ossa lagoon, which affords a navigable highway to the Niger delta. Nearly all the European trade is in the hands of the English and Germans, while the inland traffic is carried on mainly by the Mohammedans, who increased from twelve hundred in 1865 to some forty thousand in 1898.

The island of Lagos, the Auni or Awani of the natives, lies three miles from the sea, between the arms of the lagoons, the mouth of the Ogun river, and the channel opening seawards. The city occupies a large space on the west side of this marshy land, where the European quarter has been built on ground partly reclaimed from the lagoon. Of late years its trade has suffered from the frequent wars between the inland states, owing to which much of the traffic has been diverted to the factories on the Niger delta.

East of Lagos, the chief places on the coast are *Palma*, *Leekie*, or *Yeba*, and *Odi*, and on the lagoon the most important town is *Epe*. The district of *Mahin*, lately occupied by the Germans, has been restored to England by a convention recognising her right to all these alluvial lands in the Yoruba country. An extensive clearance in the forest separating Odi from the Mahin channel has become famous under the name of *Atijeri* (*Artigeri*), perhaps the *Atagara* which the Haussa sultan mentioned to Clapperton as the chief trading place on the Slave Coast.

Mahin belonged to the formerly flourishing but now extinct kingdom of Benin, which, according to Dapper, was able at one time to raise eighty thousand fighting men in a few days. But the king, in violation of his engagements with the English, persisted in offering human sacrifices. Having also waylaid and massacred an unarmed party sent to remonstrate with him, a punitive expedition was sent against him under Colonel Bruce Hamilton, who, after a sharp engagement, occupied Benin in February, 1897. The king soon after surrendered, and was deposed, his territory being now administered by a British resident in Benin.

Lagos, which was detached from the Gold Coast in 1886, forms a separate colony under a governor assisted by executive and legislative councils. Including the protectorate, it has an area of 1,500 square miles, and a population (1898) of about 100,000.

## YORUBA.

*Abeokuta*, the great republican city on the banks of the Ogun, is one of the largest places in Africa, being probably exceeded in population by Cairo and Alexandria alone. Most travellers estimate at over one hundred thousand, and some missionaries at two hundred thousand, the number of inhabitants residing within the enclosures, which are formed by an earth wall 8 to 10 feet high and an outer ditch 10 feet deep and over 20 miles in circumference. This capital of the Egba nation, which is over 4 miles long by 2 broad, presents a remarkable appearance, covering an undulating plain strewn with granitic boulders of different heights. The highest of these, called the "Rock," in a pre-eminent sense, and regarded by the natives as their tutelar deity, rises 300 feet above the mean level of the plain, which is itself some 560 feet above sea-level. All these eminences present the greatest diversity of form, some being rounded off like domes, others terminating in points sharp as needles, or else serrated like the teeth of a saw or disposed like a regular wall, while one resembles the shell of a huge turtle. The houses are pleasantly grouped at the foot of these rocks, whose grey granite walls present a striking contrast to the verdure of numerous clumps of trees dotted over the plain. Hence this place has been well named *Abeokuta*, that is, "Under the Rocks." The Egba metropolis is of recent origin, dating only from 1825, when the inhabitants of several villages, leaving the open plain, took refuge amid this labyrinth of rocks from the raids of the slave-hunters. They were soon joined by the persecuted and outcasts from all the surrounding districts, and in a few years *Abeokuta* became one of the great continental cities, strong enough to resist the attacks of undisciplined and rudely armed forces frequently sent against it by the people of Ibadan and the king of Dahomey. The inhabitants, uniting for the common defence, have constituted themselves in a free confederacy of some sixty distinct communities, each retaining the usages, religions, privileges, dialects, and the very names of their original villages. Amongst them are many thousands of Mohammedans, and a few hundred Christians grouped round the chapels founded by the missionaries. For some years these stations were tolerated, but being afterwards regarded as the centres of religious propaganda, they were all suppressed and the missionaries banished, while the converts were permitted the free exercise of their religion. But since 1886 fresh Protestant and Catholic stations have been founded in *Abeokuta*, which in 1893 recognised the British protectorate.

During the floods large boats ascend the river Ogun to the *Aro* rapids, within 2 miles of the city, but at low water they can get no farther than the bridge of Agbameya, and have sometimes to stop at *Igaon*, a little above Lagos, which is 80 miles by water from *Abeokuta*.

The chief magistrate of the Egba republic, who bears the title of king, is chosen for life from one of the four chief tribes; but if his subjects are dissatisfied with his rule he is invited to abdicate. Formerly he was requested to go to sleep, whereupon he withdrew to his harem, and a few days afterwards it was announced that the "royal sleep" had begun, from which he never woke.

*Ibadan*, till recently the rival of Abeokuta, lies in south Yoruba, some 60 miles

Fig 120.—ROCK OF ABEOKUTA.

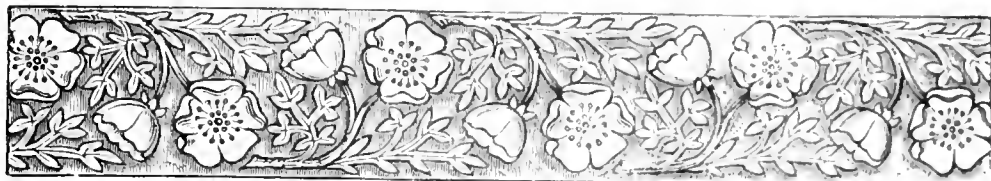


north-east of the Egba capital, on the water-parting between the Ogun and

Oshun basins. In 1851 Bowen estimated its population at seventy thousand, which has been raised to over one hundred thousand by the missionaries, who have subsequently visited the place. Like Abeokuta, Ibadan is an urban confederacy of villages grouped in a common enclosure, but each with a distinct name and special organisation. The Mohammedans are more numerous than in the rival republic, whose supremacy Ibadan has at last been compelled to acknowledge after a series of sanguinary wars. During one of these the great city of *Ijayeh*, lying 18 miles north-west of Ibadan, was totally destroyed.

Along the much-frequented highway leading through the markets of Shonga or Egga north-east to the Nupe country, follow some other large towns, capitals of independent kingdoms, in which Mohammedan influences are continually spreading. Here *Oyo* became the capital of the north Yoruba state after the destruction of *Katanga* by the Fulahs; but it is a much smaller place than its neighbour *Ogbomosho*, which lies in a fertile valley close to the water-parting between the coast streams and the affluents of the Niger. Since the spread of British influence in this region, this divide, which was first crossed by Clapperton in 1827, has been traversed in all directions by explorers, and even by military expeditions, engaged in suppressing human sacrifices and establishing British supremacy on a solid basis throughout the Yoruba lands.





## CHAPTER VII.

### THE NIGER BASIN.

#### GENERAL SURVEY.



THE "Nile of the Blacks," long regarded as a branch of the Egyptian Nile, and also confused with many other "Niles," such as the Senegal and Gambia, has at last vindicated its claim to an independent existence. It is now known to have a separate fountain-head; it has abdicated the title of Nile, but retained that of "River of the Blacks," or Niger, as the fluvial basin containing the largest Negro population. Apart from its importance in historical geography, this name corresponds to a certain extent with an ethnological classification. Yet this acceptance is justified by no expression in the various languages current along its banks. Towards its middle course the Tuaregs (Berbers), who occupy both sides below Timbuktú, simply call it Eghirren, that is, "streams," or "channels," a term more specially applicable to the part of the river where it ramifies into countless branches in the low-lying tracts. Except the Arabs, who contemptuously call it Nil-el-Abid, or "Nile of the Slaves," all the other riverain populations designate the Niger by some term having the invariable sense of a large or copious stream. Thus in its upper course the main branch is the Joliba (Dhioli-ba, Yuli-ba), the Ba-bá of the Mandingans, that is, the "Great Water," answering to the "Mayo," or "River," in a pre-eminent sense, of the Fulahs. This again corresponds to the Issa or Sai of the Songhais, the Shaderba of the Haussas, the Edu of the Nidas, and to the Kwara (Quara) current along its lower course, and by geographers often applied to the whole river.

The Niger, one of the great rivers of the globe, ranks third in Africa for the length of its course, and second for volume, being in this respect surpassed by the Congo alone. From source to mouth the distance in a straight line is only 1,100 miles, but by water no less than 2,500 miles, this great disparity being due to the fact that the river, flowing at first northwards in the direction of the Mediterranean, penetrates into the Sahara and then sweeps round to the east and south. The basin thus developed cannot be estimated at less than 1,000,000 square miles, including all the regions of the Sahara depending upon it by the slope of the land and direction of the intermittent or dried up fluvial valleys. The whole of the

Tsad system, with the Shari and its other affluents, might even be regarded as belonging to the Niger basin, the divide between the two hydrographic regions being extremely low, and the general aspect of the land showing that at a former geological epoch both systems were connected by intermediate channels. It is even probable that, before piercing the coast ranges barring its passage southwards to the Gulf of Guinea, the Niger flowed eastwards, developing vast inland seas, of which the Tsad is a surviving fragment. Possibly the "Nile of the Blacks" may at that time have really effected a junction with that of Egypt, through the low water-parting between the Upper Shari and the numerous streams flowing to the White Nile. In that case the Benue, at present its great affluent from the east, would have been the branch for communicating directly with the Atlantic. Traversing regions exposed to a much heavier rainfall, the Benue, although shorter, has even now an equal, if not a greater volume, than the main stream itself.

In the joint Niger-Benue basin the population is very unevenly distributed, certain tracts on the Saharan slope and elsewhere being uninhabited, whilst others are densely peopled, with numerous large towns, villages following close together, and the whole land forming a continuous garden. The actual population is estimated by Behm and Wagner at forty millions, although judging from the detailed descriptions of travellers, it can scarcely amount to half that number.

In any case it is certain that throughout a long historic period, powerful commercial and industrial nations have succeeded each other in the Niger basin. Like the Nile, this river was a centre of culture, and its cities became famous throughout Northern Africa, and even beyond the continent. The kingdom of Ghana, whose name under the form of Guinea, has been so widely diffused along the western seaboard, was known to the Venetian traders long before it was visited by any European travellers, and for centuries Timbuktu figured in the imagination of the western peoples as a sort of remote African Babylon. The Niger affords a striking example in support of the law of primitive cultures, recently expounded by Leon Mechnikov. Here also, as in the Hoang-ho, Indus, Euphrates, and Nile basins the riverain populations have been very irregularly developed, nor were the inhabitants of the fluvial deltas anywhere the first to reach a higher state of civilisation. Progress was always most rapid in the interior, where were first constituted national groups sufficiently powerful and industrious to play an important part in the history of mankind, and transmit their fame to remote regions. While such nations were being developed along the Middle Niger, the natives of the delta remained in a barbarous state, blocking the approach to the sea from the civilised inland peoples.

#### PROGRESS OF DISCOVERY.

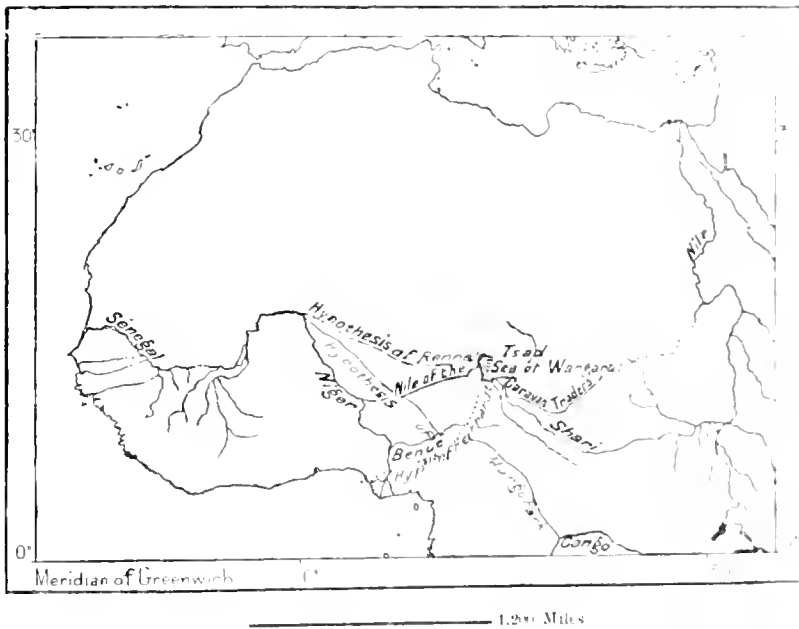
Thus it happened that, for four centuries, Europeans frequenting the seaboard remained profoundly ignorant of the true course of the great Nigritian river. Even Mungo Park still supposed that it reached the Atlantic through the Congo, and it was mainly in the hope of verifying this theory that Tuckey's disastrous



expedition up the Congo was carried out in 1816, while Peddie was to join hands with him by descending the Niger! Yet in 1802, the geographer Reichard had already traced on the map the true mouth of the river, although even he made it pass through Rennell's "Sea of Wangara," now identified with Lake Tsad. It was only in 1830 that the brothers Lander determined its true lower course by actual exploration; but the survey of the whole river was not completed till 1890. It began with Mungo Park, who devoted his life to the problem, and who in 1796 reached the Niger at Segou, which he found already as large as the Thames at Westminster, and flowing slowly towards the east. From this point he followed it for 120 miles down to Silla, and for the same distance up to Bamaku, thus apparently verifying Herodotus' account of a great river flowing "from west to east" across

FIG. 121.—HYPOTHESES OF THE OLD GEOGRAPHERS ON THE COURSE OF THE NIGER.

Scale 1 : 60,000,000



Africa. In 1805 he started on his second voyage from the same village of Bamaku, but after four months' floating with the stream he perished with all his party at the passage of some narrow rapids near Bussa. One slave alone escaped, and as the papers were lost in the rapids, no details were received in Europe of this ill-fated expedition.

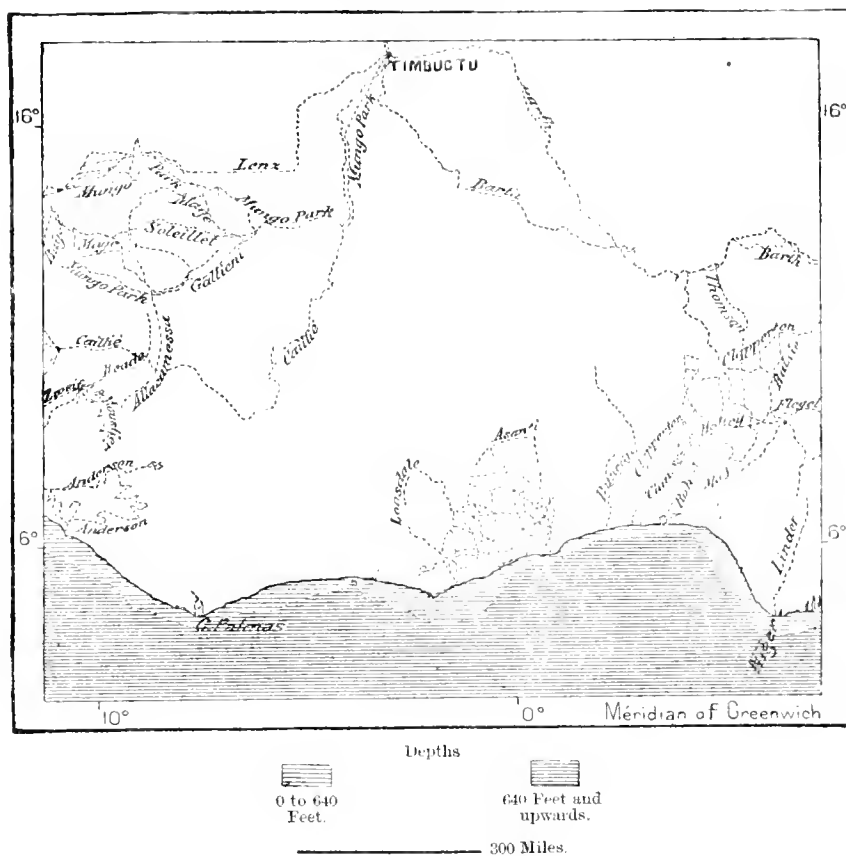
In 1826 Clapperton crossed the Niger below the point where Mungo Park was drowned, and the approximate form of the ramifications above Timbuktu was determined by Caillie's journey in 1827-28. Lastly, in 1830, Richard Lander, companion of Clapperton in the previous expedition, succeeded, with his brother, in following the lower course all the way to its mouth.

In 1832 Laing reached the hilly district where the headstreams have then

source, and in 1869 Winwood Reade crossed the Joliba itself within 110 miles from its origin. Ten years later, Zweifel and Moustier came within sight of the Tembikundu hill, the fountain-head of the sacred river; but the spirit of the waters, represented by a suspicious high-priest, barred their farther advance. Of the upper course the best-known section is naturally that which flows through the territory of French Sudan for a distance of about 800 miles between Falaba and Ilo above Bussa. But even here the side branches and eastern affluents have been traced on the maps only from the reports of native traders. Below Timbuktu the

Fig. 122.—CHIEF ROUTES OF EXPLORERS IN THE NIGER BASIN BEFORE 1890.

Scale 1 : 20,000,000.

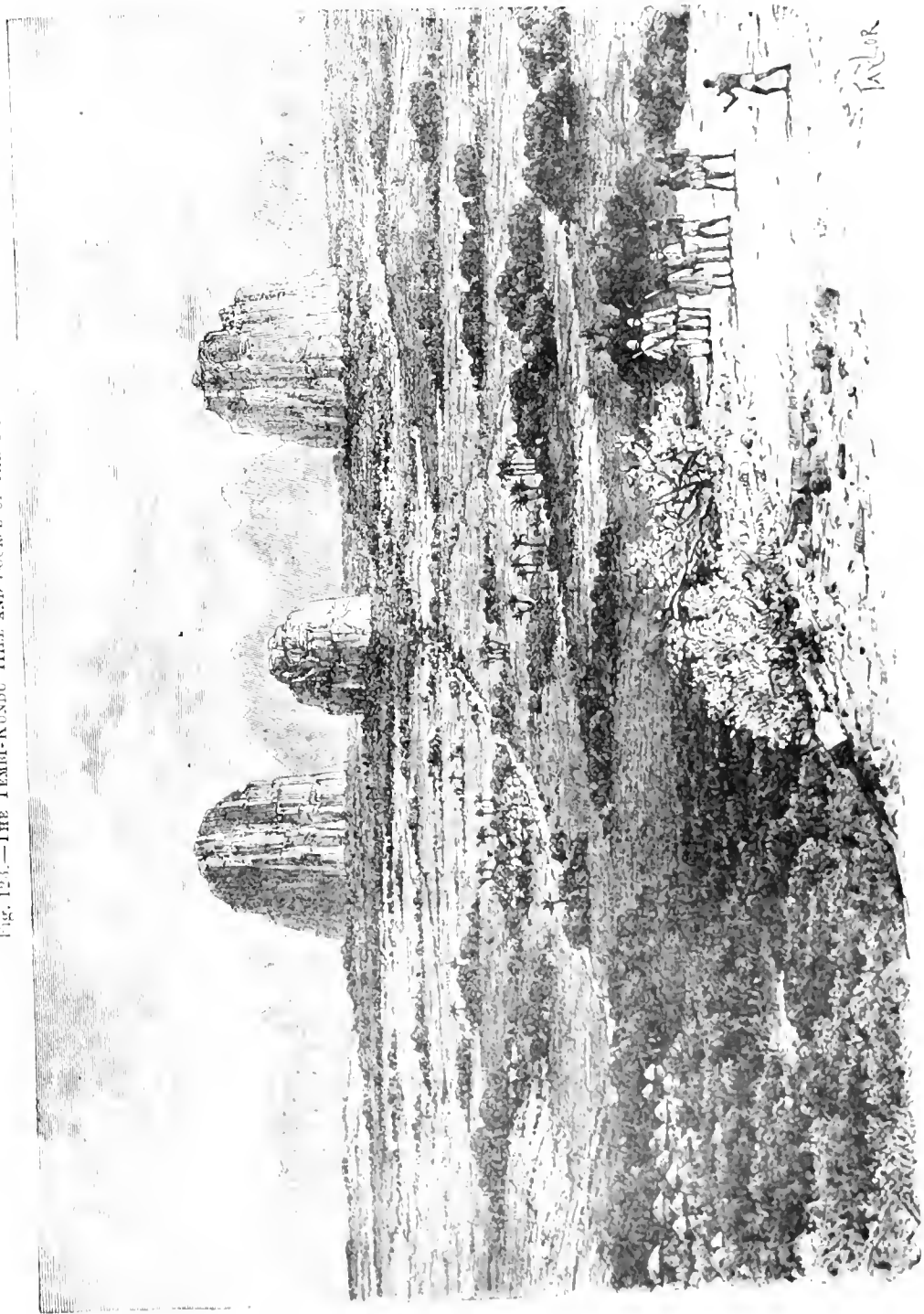


course of the stream had been more accurately determined by Barth's survey in 1854; and the space of about 165 miles, between the towns of Say and Gamba, at the Sokoto confluence, has been surveyed by several French explorers since the occupation of Timbuktu in 1894.

All the lower reaches, except some of the secondary branches of the delta, are well known, having been ascended from the sea by Laird in 1832, and Oldfield in 1834, and since then by numerous other explorers, including Joseph Thomson, who, in spite of many obstacles, made his way from the coast to Sokoto and back

in four months. The Benue also, discovered by Barth in 1851, was ascended in

Fig. 124.—The Tembi-Kundu Hill and Source of the Niger.



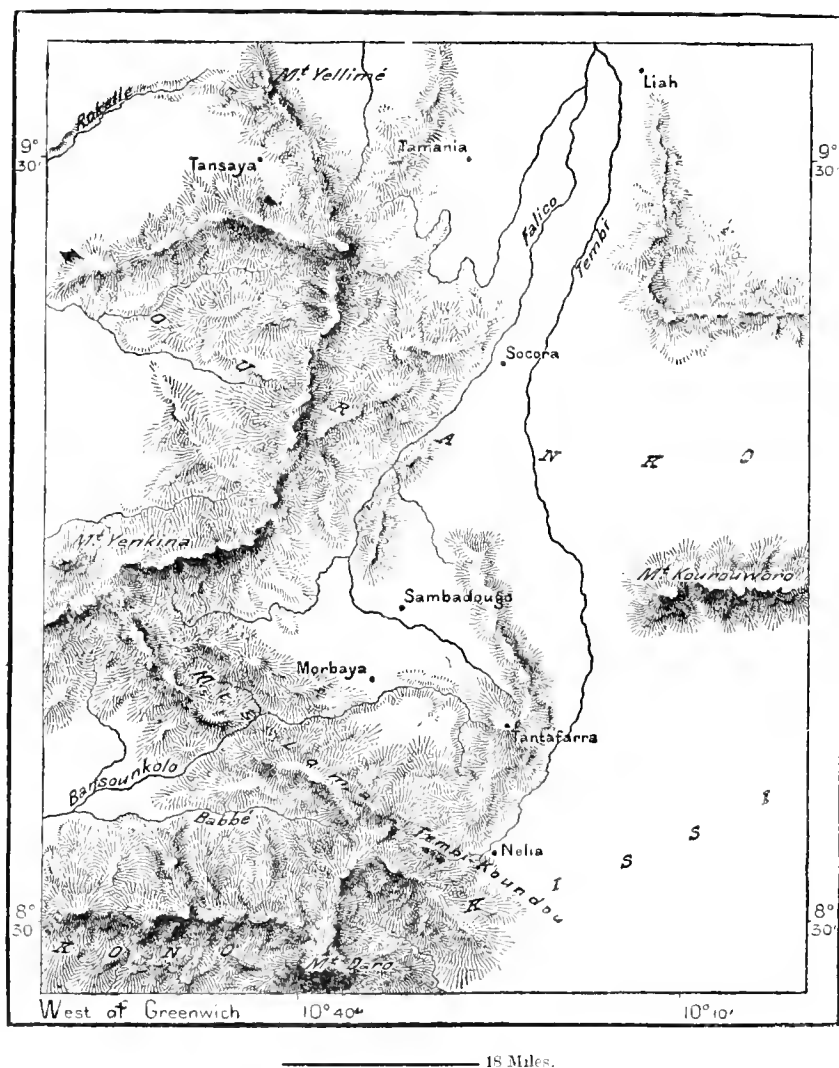
1854 by Baikie for 660 miles from the Atlantic. In 1879 a steamer belonging to

a missionary society penetrated 180 miles beyond Baikie's farthest, ascending for 36 miles the Faro confluence, where the Benue had already been crossed by Barth.

Since that time both the Benue and the Niger have been brought within the sphere of European trade, and the "Royal Niger Company," formed by a number of English merchants, has become the almost official sovereign of all these regions,

Fig. 124.—UPPER NIGER VALLEY.

Scale 1 : 1,100,000.



comprising numerous kingdoms and republics, and peopled by various races with different languages and religions. According to the stipulations of the Anglo-French treaty of June, 1897, the future supremacy of the Joliba, or Upper Niger, as far as Ilo below Say, is reserved to France, that of all the rest to England, the main stream being, however, thrown open to the flags of all nations.

## THE UPPER AND MIDDLE NIGER.

A special interest attaches to the origin of the great river whose basin has thus been already partitioned between two European Powers. Although prevented from coming within four miles of its source, Zweifel and Monstier were at least able to collect sufficient information to describe it. The Tembi, as the farthest head-stream is called, is now known to rise at the Tembi-Kundu hill, that is, the "Tembi Head," a huge rounded block standing between two others of like form, but much higher, with a bluish range in the background. The spring immediately develops a rivulet two feet broad, which flows rapidly to a little lake with a rocky islet shaded by a wide-branching tree, the retreat of a powerful wizard renowned throughout the surrounding lands. Beyond the lake the Tembi plunges into a deep fissure, reappearing some distance below the village of Nelia.

The "father of the Joliba," which at its source has an altitude of about 2,800 feet, flows mainly north to its junction with the Faliko, 84 miles from the Tembi-Kundu hill, the united stream forming the Joliba, and maintaining a north-easterly course through French Sudan to and beyond Segou, and receiving the Tankisso and several other affluents from the neighbouring hills and plateaux. At the Tankisso junction, 260 miles from its source, it has already descended considerably more than half of the total incline, and is here little more than 1,000 feet above sea-level. At Bamaku the mean breadth is over 500 yards, with a depth of 6 or 7 feet; but the channel is here obstructed by numerous reefs and sandbanks, such as that of Sotuba, above which steamers can ascend only during the floods.

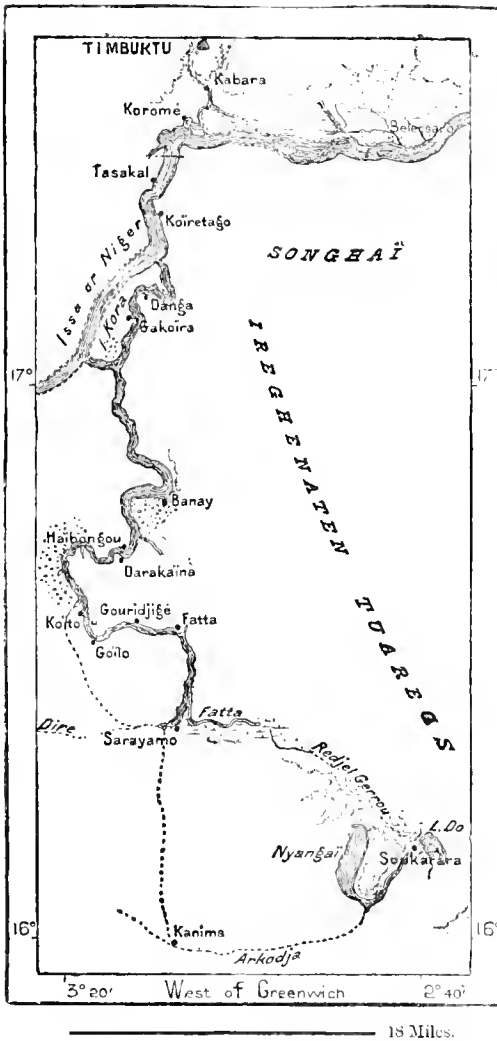
At Sansadig, where its bed is little more than 800 feet above the sea, the Joliba enters a flat region with scarcely any perceptible incline, in which the sluggish current ramifies into a sort of inland delta. The eastern and largest branch, which was alone followed by Mungo Park and Caillié, encloses with the Diaka, or western arm, the low island of Burgu, which is fully 120 miles long, but intersected by innumerable connecting channels. From these branches the stream converges in the Debo, a vast morass flooded during the inundations, and succeeded farther down by other insular tracts and temporary lakes, like those of the White Nile about the Bahr-el-Ghazal confluence, but destitute of the floating masses of matted vegetation so characteristic of that river.

In this lacustrine region the Joliba is joined from the south by its great affluent, the Bakhoy, or "White River," called also the Ulu-Ulu, which is probably as copious as the main stream itself. The vast basin of the Bakhoy, occupying all the northern slopes of the Kong uplands from Liberia to Ashanti, was little known before the expedition of Captain Binger, who traversed this part of the Niger Bend in 1889. After its confluence with the Koraba (Pambine or Mahel Bodeval), which is over 300 yards wide and 10 feet deep at the point crossed by Caillié, the Bakhoy flows parallel with the Joliba, and after ramifying into numerous branches in the Jenné country, joins the main stream above Lake Debo.

Below the confluence the Niger again develops an intricate system of channels and backwaters penetrating 90 miles southwards under the meridian of Timbuktu. The riverain populations capture large quantities of fish in this labyrinth of waters, which rise and fall with the seasons; they also grow rice in the moist depressions, harvesting the crops before the periodical return of the floods, thus alternately using the same tracts for fishing and husbandry.

Fig. 125.—BACKWATERS SOUTH OF TIMBUKTU.

Scale 1: 1,500,000.



Some 15 miles farther down the main stream, arrested in its northerly course by the southern escarpments of the Sahara, is abruptly deflected for about 240 miles eastwards to the gorges in the Burum district, immediately below which it sweeps round to the south, retaining that direction for the rest of its course to the Gulf of Guinea. But before opening this passage seawards it is probable that the Niger converted into a vast inland sea all the low-lying region which is now intersected by the network of backwaters flooded during the inundations. One of these channels still runs northwards in the direction of Timbuktu, beyond which, according to the information collected by Pouyanne and Sabatier, it appears to be continued through a series of depressions probably marking the course of the Niger at a geological epoch anterior to the piercing of the Burum gorges. But the suggestion that the Wed Messaura of Southern Mauritania and the Twat oasis now occupies the same depression with its sandy bed, seems to be contradicted by the provisional measurements taken by de Soleillet and Lenz in

Twat and Timbuktu, the latter point being apparently some 430 feet higher than the former.

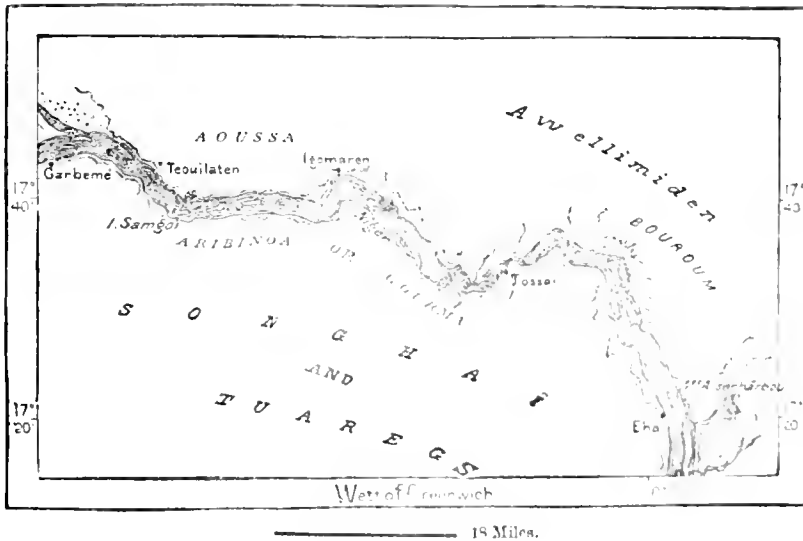
About 60 miles below the Burum defiles, where at Tossai the fluvial bed is contracted to less than 300 feet, the Niger passes from the zone of the Sahara to that of Sudan. Here two branches of the stream at the foot of the sandstone Ausongo hills enclose an island 18 miles long and strewn with rocks in the form

of obelisks, the remains of obstructions not yet entirely removed by the current. Farther on follow other narrows and barriers, especially south of a chain of hills 800 to 1,000 feet high skirting the left bank. Here the Niger is joined by the now almost dried-up Wed Tafassasset, which rises on the southern slopes of the Ahaggar hills, and which with its various ramifications probably at one time watered a region as extensive as that of the Joliba itself. The Dallul Bosso valley, in which the whole system converges, is even now never quite waterless, its lower course winding through a district with a yearly rainfall of scarcely less than 20 inches.

Lower down the Niger is joined opposite Gomba by the perennial Gulbi n' Sokoto, or "River of Sokoto," so called from the city of that name situated on its banks. The Sokoto, which rises in the Katsena country, waters the northern zone

Fig. 126.—THE BURUM DEFILE.

Scale 1:124,000.



of Sudan on the verge of the Sarahan savannas; but its bed, from 130 to 250 feet wide, contains very little water except during the floods. Flegel, who surveyed its lower course for 90 miles from Gomba to Birni n' Kebbi, represents it as obstructed by vegetable remains, trunks of trees, and muddy banks.

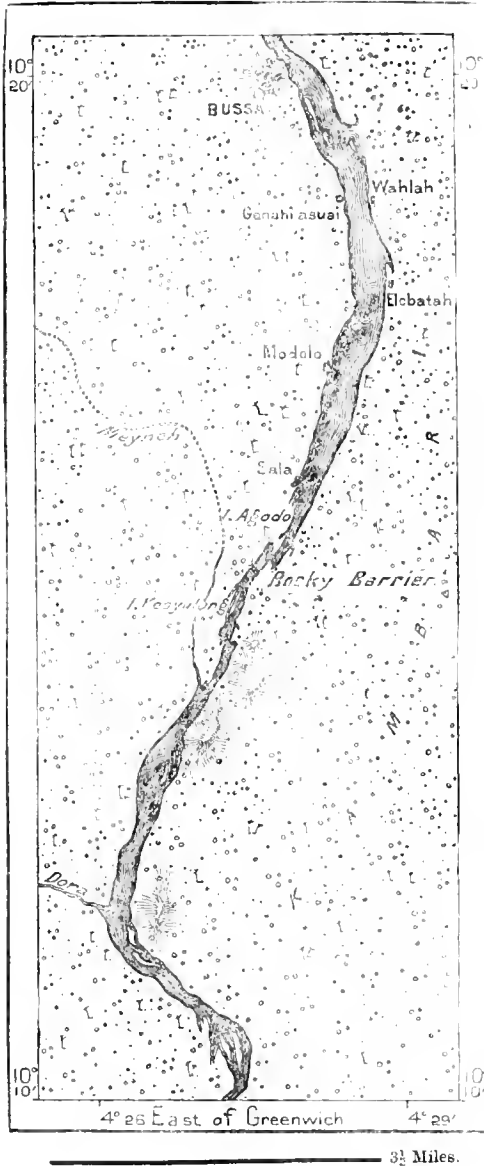
Below the Sokoto confluence the Niger is still obstructed by some extremely dangerous rapids, such as those near Bussa, probably the point where Mungo Park perished in 1806. The boatmen who accompanied Flegel in 1880 assured him that at low water the remains of the European boat were still visible, and the brothers Lander obtained from the king of Bussa some books and other documents belonging to the famous explorer. At Goba, where the river is deflected south-eastwards to the Benue confluence, the rocky islet of Kesa rises abruptly 330 feet above the water, and from this point the Niger, still 450 feet

above sea-level, glides with a placid uniform flow, unimpeded by any farther obstacles for 450 miles to the coast. This section, which is joined above Egga by the copious river Lifun, or Kaduna, from Zaria, is now navigated by large steamers

even in the dry season, when some parts are over 60 feet deep, rising 30 or even 40 feet higher during the floods.

Fig. 127.—THE BUSSA RAPIDS.

Scale 1 : 135,000.



### THE BENUE.

The Benue, or “mother of waters,” is a second Niger in volume, while it must be regarded as by far the more important of the two great arteries in economic value, as a navigable river flowing through thickly peopled and cultivated lands. The term Chadda applied to it by some of the riverain peoples and adopted by the early explorers, had its origin probably in a confusion between its upper course and Lake Chad or Tsad. Most of the other local designations are referable to a sort of mystic opposition between the two rivals, the Benue, or “Black,” and the Kwara (Niger), or “White River,” an opposition fully justified by the colour of the respective waters.

Of the Benue the most striking feature is its slight incline, estimated at scarcely 600 feet in a total course of as many miles, and falling from about 900 feet above sea-level at the head of the navigation to 270 at the confluence. Thanks to the explorations of Baikie, Ashcroft, and Flegel, the navigable section is well known. The region of its headstreams was also reached in 1889 by Major C. M. Macdonald, and since then by others, who have made it clear that the Upper Benue is connected, at

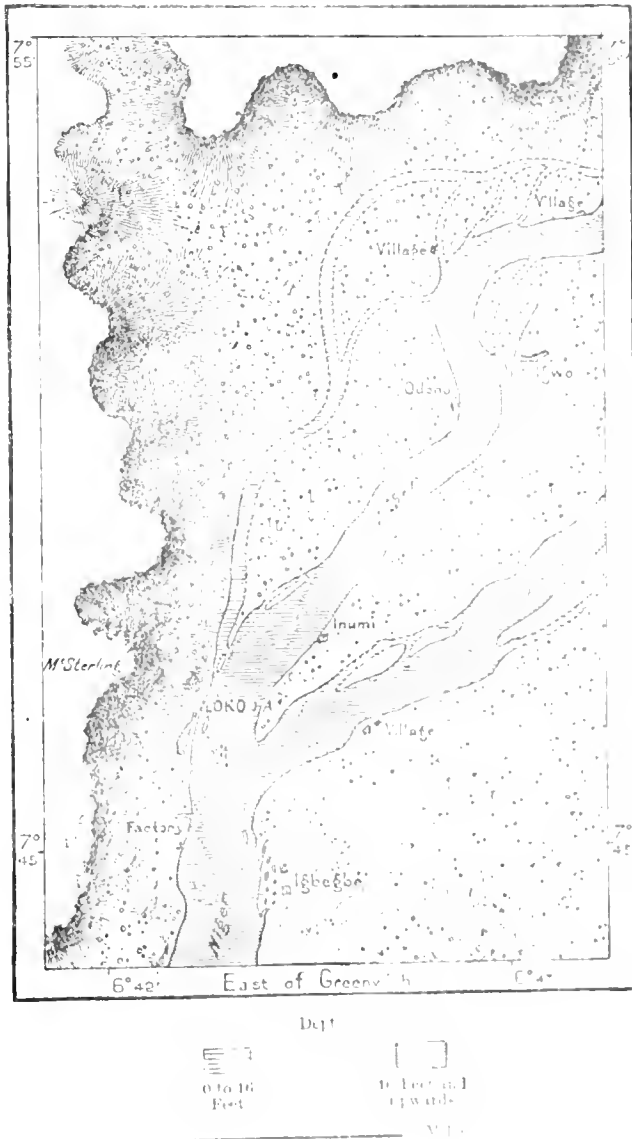
least during the floods, by a continuous line of navigable channels with the Shari and Lake Tsad. From the Tuburi swamps, discovered by Vogel at an altitude of about 1,000 feet above the sea, the superfluous waters flow in one direction northwards to the Logon branch of the Shari, in another westwards to the Mayo Kebbi,



that is, the largest headstream of the Benue, which descends from the neighbouring Ngaunderé Mountains. After the confluence the united stream, already 500 or 600 feet wide, winds westwards between sandstone hills rising many hundred feet above its bed, which at many points is obstructed by rocky ledges, rendering all

Fig. 128. CONFLUENCE OF THE NIGER AND BENUE.

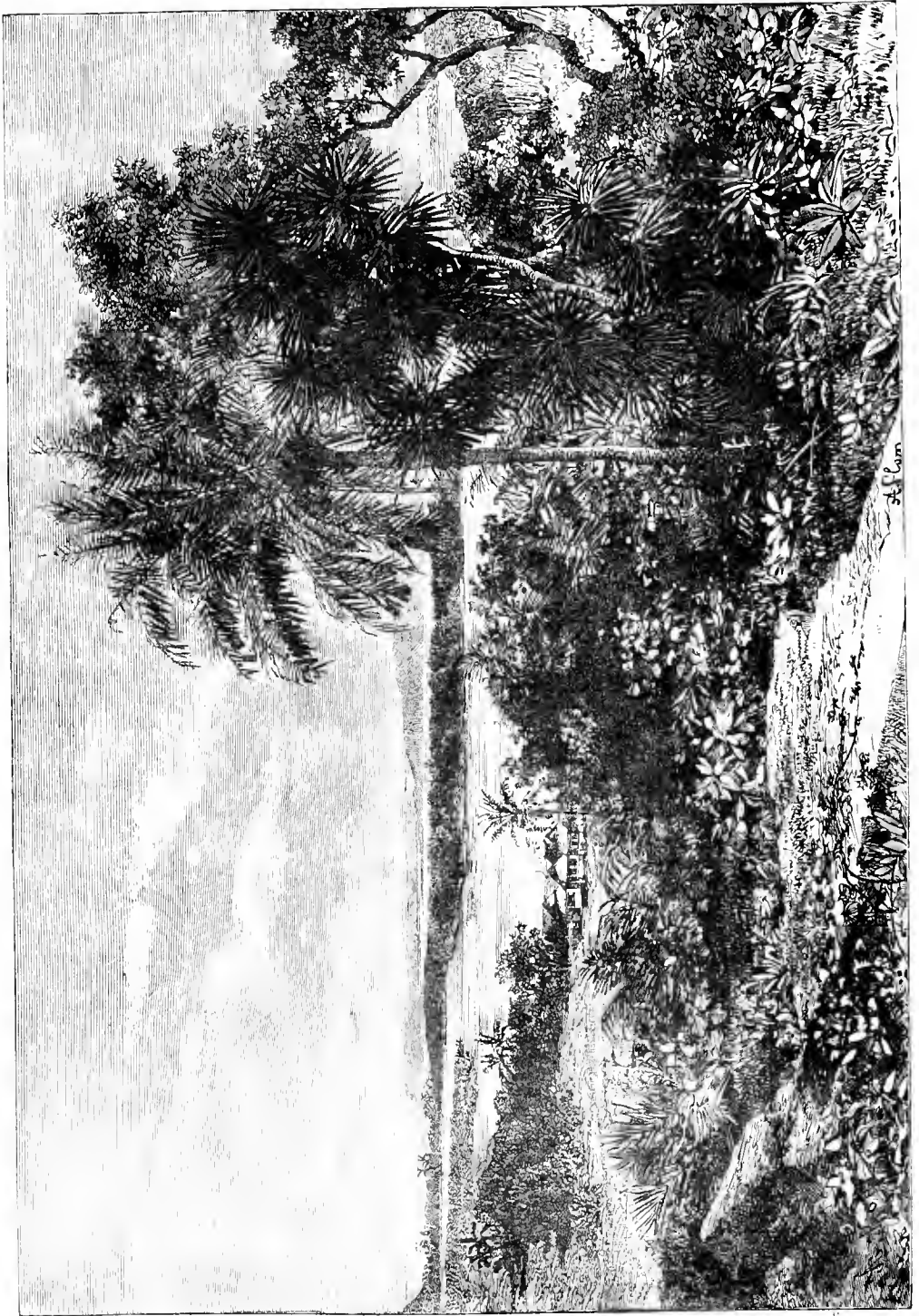
Scale 1 : 170,000.



navigation impossible in the dry season. But it is soon swollen by numerous affluents from the Wangara hills in the north, and from the south by the Paro (Paro), a copious stream descending from the still unexplored regions beyond Adamawa, and sweeping round the east foot of Mount Alotika, one of the

culminating points of West Africa, although Barth's estimate of its height, 8,000 to 10,000 feet, is regarded by Flegel as exaggerated.

Fig. 129.—CONFLUENCE OF THE KWARA (NIGER) AND BENUE.

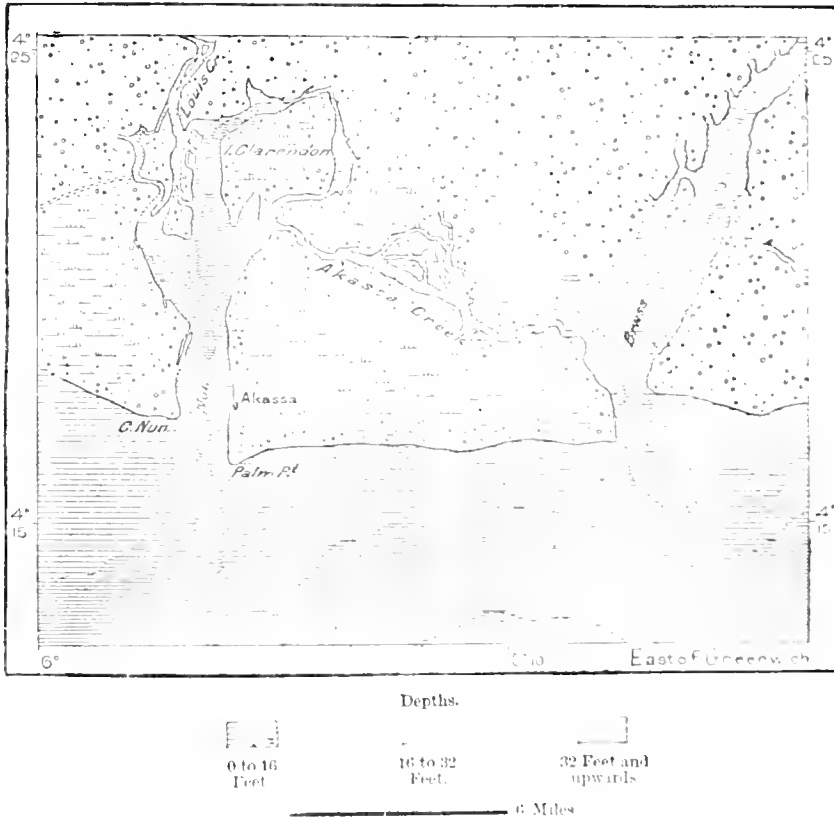


Below the Faro confluence the Benue flows mainly in a south-westerly

direction in valleys of varying breadth, but everywhere skirted on the horizon by ranges or detached masses of hills and mountains. At many points the stream is over 1,000 yards wide, and here and there divided by islands into several branches. At the Niger confluence the intermingled grey and blackish currents present the aspect of a vast lake encircled by hills, and during the floods in August and September discharging probably over 1,000,000 cubic feet per second. From this point the united stream flows nearly due south for 230 miles to the head of the delta, which is still 60 miles from the coast. This extensive low-lying tract,

Fig. 130.—MOUTHS OF THE NUN AND BRASS.

Scale 1 : 500 000.



developing a remarkably symmetrical semicircle between the Benue and Brass estuaries, and intersected by countless channels, lagoons, marshes, and stagnant waters, has a coastline of about 210 miles, with a total area of 10,000 square miles.

### THE NIGER DELTA.

At present the chief branch of the delta is the river Nun, which follows the main axis of the Niger, entering the sea at the southernmost point of this watery region. North-west of it flows the Benue, which gives its name to the neigh-

bouring bight, and which is the Formosa of the Portuguese. Although over 16 feet deep at low water, the bar at the mouth of this channel is rendered so dangerous by the fury of the breakers that vessels drawing more than 6 or 7 feet scarcely venture to risk the passage. Between the Benin and the Nun follow nine other branches, of which the Rio Forcados alone is of easy access to craft of average size. The mouth of the Nun, although often dangerous, may still be easily ascended by vessels drawing 13 or 14 feet. Farther east follow other arms at average intervals of 10 miles, all with dangerous bars, and all connected in the interior by a labyrinth of navigable channels.

For ten months in the year the prevailing winds blow inland, often with sufficient force to enable sailing vessels to stem the fluvial current. Towards the end of November begins the season of the so-called "smokes," dry fogs rendering the seaboard invisible at a short distance off the coast, but usually dissipated by the afternoon breeze, and occasionally dispersed by tornadoes.

The two ramifying estuaries of New Calabar and Bonny are usually regarded as forming part of the Niger hydrographic system, with which they are connected by a branch of the delta and several brackish channels along the coast. But these estuaries are chiefly fed by an independent stream which rises in the hilly region skirting the south side of the Benue Valley. The Old Calabar estuary, which has also been included in the Niger system, and which higher up has been wrongly named the Cross River, as if it communicated westwards with the delta, is on the contrary an entirely independent basin, which in its middle course takes the name of Oyono. It is a very large river, which in 1842 was ascended by Becroft and King for 190 miles to the rapids, and which in many places was found to be over 1,000 yards wide and here and there from 40 to 65 feet deep. The surveyed section describes a complete semicircle round a mass of syenitic hills over 3,000 feet high, and its valley is probably continued eastwards, so as to isolate the Kameroun highlands from the rest of the continent. The lower course of the Oyono, although not directly connected with the Niger, nevertheless forms, like the Rio del Rey farther east, an easterly continuation of its alluvial zone, the whole region presenting everywhere the same general aspect, and yielding to commerce the same natural products. Politically also these secondary basins, like the Niger itself, are under the suzerainty of Great Britain.

#### THE UPPER NIGER STATES.

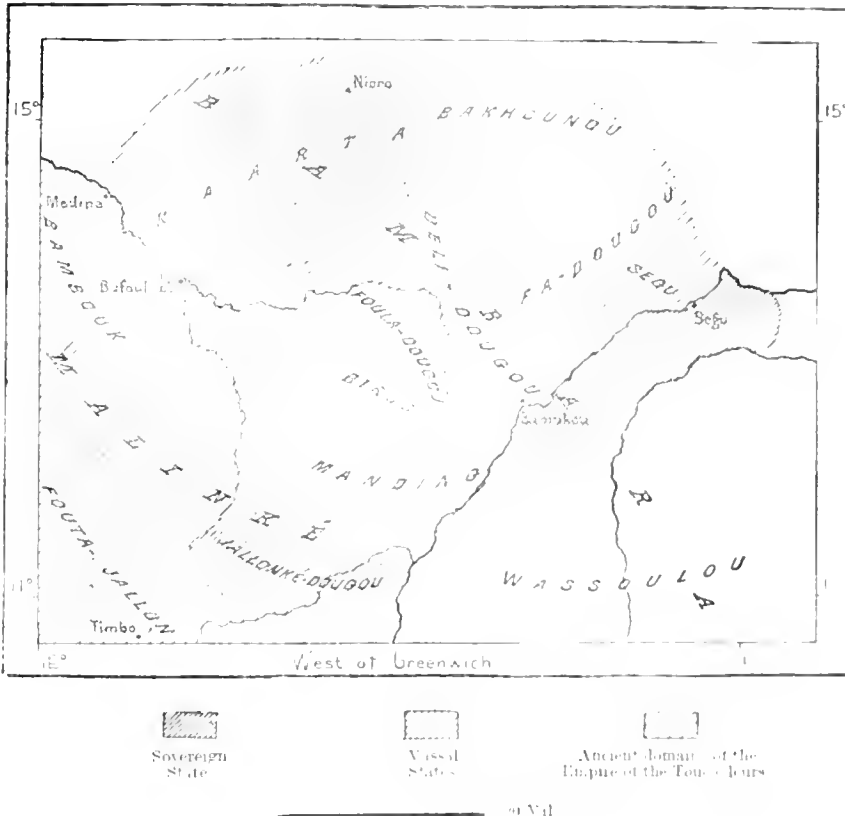
The lands watered by the Upper Niger as far as the Benue confluence comprise a large number of tribes and nations which, before the French conquests of 1890-98, constituted three main political groups. Like most of the empires developed since the Mohammedan invasion, the southern state was of religious origin. It dated only from about the year 1875, when mention first occurs of the new prophet Sambura, or Samory, who was then reported to be agitating the Wasulu and other Upper Niger lands, destroying the towns of the unbelievers, and enroll-

ing the Faithful for the Holy War. The French had no direct relations with him till 1881, when they sent him a native envoy, who ran great risk of his life in undertaking this mission. Soon after their respective forces came into collision, with the result that Samory acknowledged the French protectorate on the left bank of the Niger below Tankisso or Bating, while consolidating his own power in the upper regions and eastwards beyond Wassulu.

Since the foundation of this Mussulman kingdom a veritable social revolution

Fig. 131.- ANCIENT EMPIRE OF THE TOUCOULEURS.

Scale 1:7,000,000



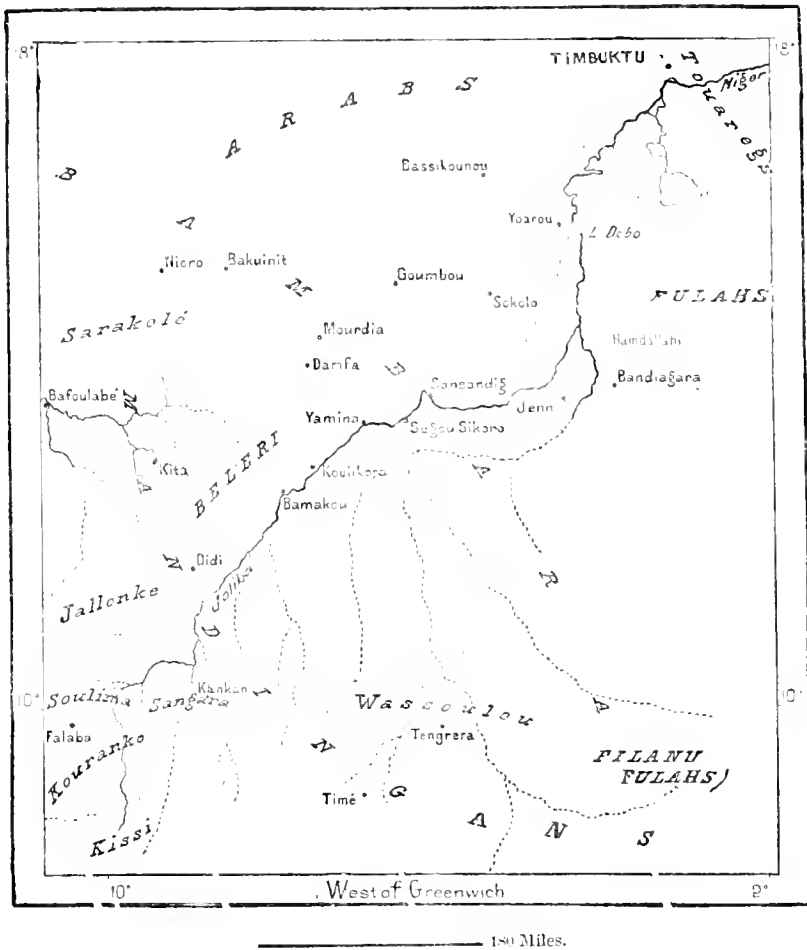
was brought about by the new Mandingan Sultan, who everywhere suppressed the slave trade, but enlisted the captives as soldiers, commonly known as "Sofas," arming them with modern rifles, and accustoming them to European discipline. These tactics enabled Samory to hold out against the French till the year 1898, when he was finally overthrown, and his territory incorporated in French Sudan.

A like fate has overtaken the Toucouleur empire, below the French protectorate on the left bank of the Niger, which was founded in 1850 by the pilgrim Omar, who after overrunning the Jallouké country, received a first

serious check at the French station of Medina in 1857. But although defeated on the Senegal, Omar was still victorious on the Niger, reducing Kaarta and Bele-dugu, and advancing through Segou and Massina to Timbuktu. After his death family dissensions, followed by the revolt of the oppressed Bambaras and Mandingans, brought about the dismemberment of the state, which was broken into detached fragments by the advance of the French to the Niger. The

Fig. 132.—INHABITANTS OF THE UPPER NIGER.

Scale 1 : 10,000,000.



struggle against the French was renewed by the new Sultan, Ahmadu, in 1890. But the very next year his forces were attacked and dispersed by Colonel Archinard, and this blow was followed by his complete overthrow by Captain Blachère in May, 1893. Thus was thrown open the road to Timbuktu, the capture of which, in 1894, may be said to have completed the conquest of the French Sudan.

## INHABITANTS OF THE UPPER NIGER.

The bulk of the populations inhabiting the Joliba and its affluents belong to the Mandingan race. The Kurankos about its sources, akin to those on the west slope of the Loma Mountains, are grouped in a large number of semi-independent states, each with its own king, council of elders, fetishmen, special usages and local feuds. Their Kissi neighbours, of a more peaceful disposition, have contracted friendly alliances with all the peoples between the Senegambian coast and the Kong mountains. Farther north the Sangaras, formerly constituting little autonomous republics, had been compelled to recognise the authority of Samory, but after his fall accepted the French protectorate in 1898.

In the region watered by the eastern alluents of the Joliba the most numerous

Fig. 133.- INTERIOR OF A BAMBARA HOUSE.



nation appears to be that of the Wassulus, in whose country the villages are so closely packed that, as the natives say, "the king's word is passed on from voice to voice" to the limits of the state. Although regarded by Chellé as of Fulan stock, the Wassulus have many features in common with the Bambaras, and the current speech is Mandingan. The Sirakolés, who are great traders, are also very numerous in this district, where the towns are inhabited by Mohammedans and the country by pagan Wassulus. Although of peaceful disposition, and like the Fulahs engaged chiefly in stock-breeding, the Wassulus can fight bravely for their national independence, and are said to have hitherto held their own against the attacks of Samory.

North of the Wassulus the chief nation on the Niger and neighbouring lands

are the Bambara Negroes, who call themselves Ba-Manao (Ba-Mana), or "People of the Great Rock." Traditionally from the southern highlands, they belong to the same stock as the Mandingans, and speak fundamentally the same language. But they are physically a very mixed people, described by some as even typical Negroes, by others as characterised by thin lips and aquiline nose. From all their neighbours they are distinguished by three parallel incisions traced on the cheek from the angle of the eye to the corner of the mouth. The Bambaras are also an industrial people, skilful blacksmiths, manufacturers of gunpowder, ropes, and cordage, builders of boats, bridges, and well-constructed wooden houses, usually of rectangular shape, with gutters for carrying off the rain-water, and apertures to let the smoke escape. Like the Wassulus, they are gentle, hospitable, and generous, harbouring no malice and easily given to laughter, exceeding all other natives in boisterous merriment. But although renowned for their valour, and as implacable in war as they are mild in peace, the Bambaras have everywhere been subdued by other nations, in the Upper Joliba valleys by the Fulahs and Mandingans, in French Sudan by a handful of whites, on the opposite side of the Niger and in Kaarta by the Toucouleurs. The few small tribes between Kaarta and Bele-dugu became French subjects after the overthrow of Ahmadu in 1893.

Nearly all the Bambaras, at least of Kaarta, call themselves Mohammedans, but are so little zealous that their Toucouleur masters look upon them as no better than Kafirs. Many of their tribes, after recovering their political independence, have even abandoned the rites of Islam, resuming the pagan ceremonies and profane amusements of their ancestors. At their feasts they get drunk on *dolo* and eat the flesh of dogs or jackals to show their hatred of the oppressor's religion. Thus Mohammedanism, which is so rapidly advancing in other parts of Africa, is losing ground amongst the Bambaras as well as the Kurankos. Certain secret societies also still celebrate their rites in the forests, and most of the people have their fetishes—roots, rags, tufts of hair, or the like, kept in an ox's horn, in an elephant's tusk, or more frequently in a calabash or a large earthenware pot, the round form and yellow colour of which represent the sun, creator of all things. Sometimes this vase contains a coiled snake, emblem of a world without beginning or end; when empty it is approached with still greater awe, for then it is the abode of the unknown god.

#### TOPOGRAPHY.

In the Upper Joliba basin even the capitals of states are mostly mere groups of huts, such as *Nelia* and *Tantafara*, close to the source of the river; *Lia*, at the confluence of the branches forming the Joliba; *Fáranua*, on the right bank, 120 miles below the source, which at the time of Winwood Reade's visit was a mere heap of ruins. *Galaba*, near the head of the Janda, was the usual residence of Sultan Samory in 1881; but in 1885 it had been replaced by *Sanankoro*, lying farther north, as the summer capital, and by *Bissandu*, lower down, as his winter





YOUNG LUYALU

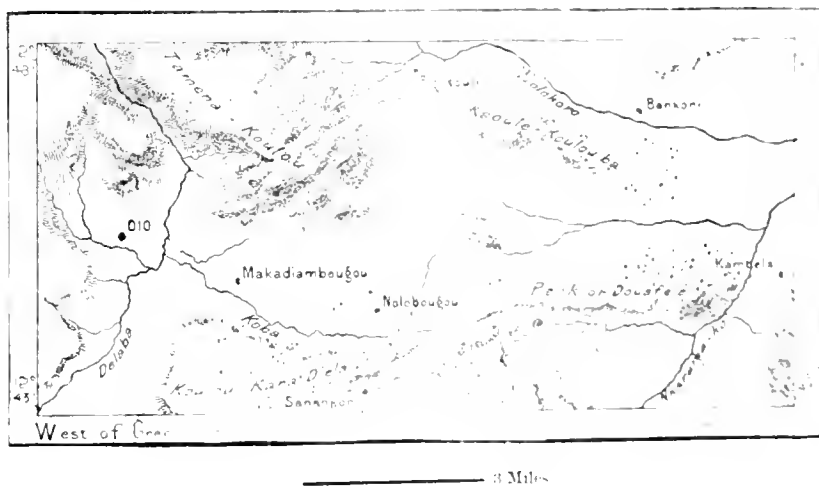


residence. Near Bissandu, on the Milo, a small affluent of the Niger from the east, lies *Kankan*, the chief trading place in the country, inhabited by Mandingan and Sarakolé merchants, who monopolise the whole trade of the Upper Niger basin. Kankan, once a hotbed of Mohammedanism in this region, and frequently at war with the pagan Torons, or Torongos, who occupy the south-eastern highlands, has become a flourishing industrial centre since its occupation by the French in 1893.

In the basin of the Bakhoy, or eastern Niger, the chief markets are *Tengrera*, *Debena*, and *Kong*, that is, "The Mountain," a large Mandingan town famous in all the surrounding lands for its wealth in gold, woven goods, corn, and horses. Kong was for the first time visited by Captain Binger in 1889, and since then has accepted the French protectorate.

Fig. 134.—THE DIO WATERSHED BETWEEN THE NIGER AND SENEGAL

Scale 1 - Zuckerman

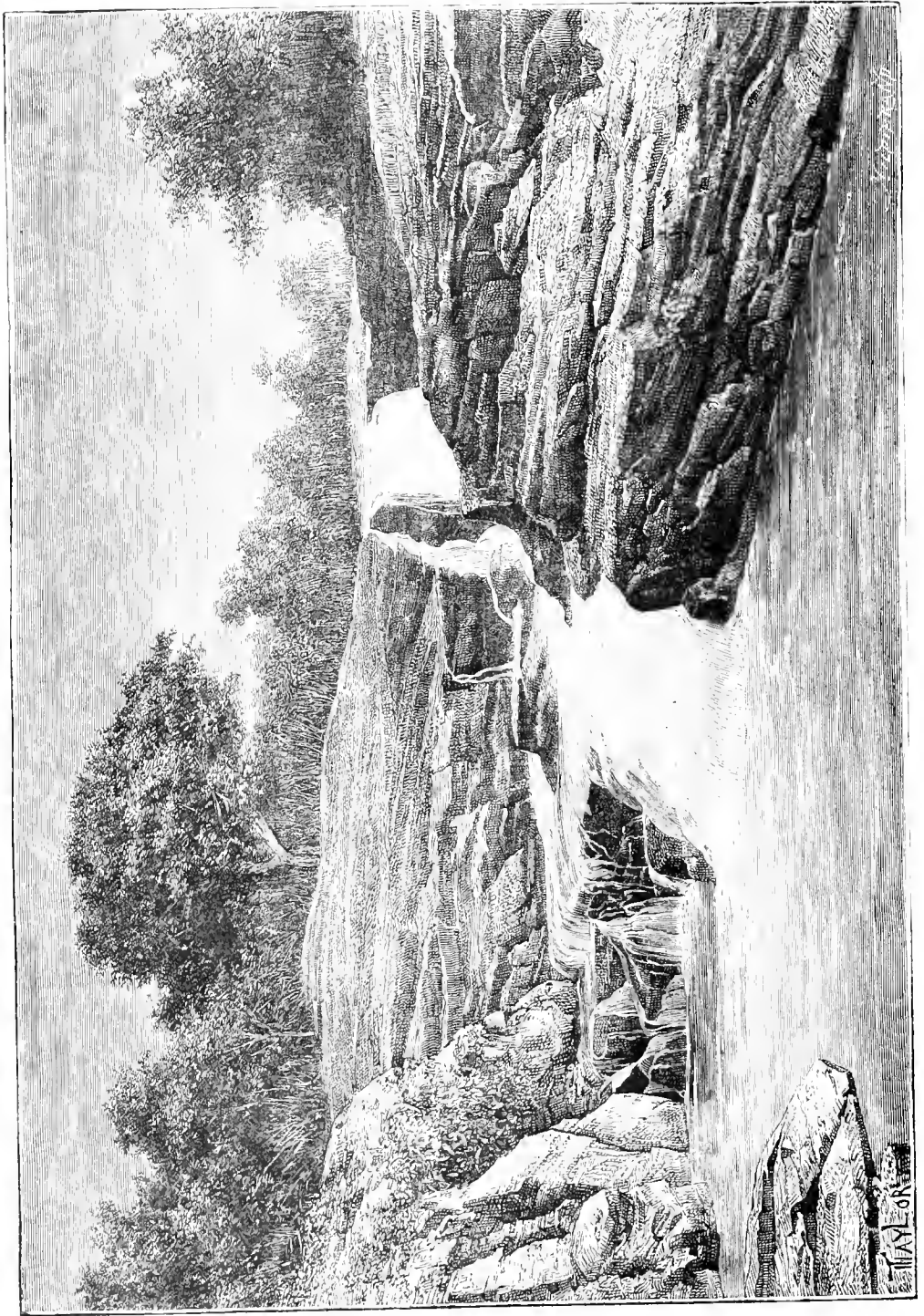


*Falaba*, on the right, and *Falamu*, near the left bank of the Niger, mark the section of the river which forms the eastern limit of French Sudan. Here it is joined by the Tankisso, or Bafing, from the Jallonké-dugu and Baleya districts, and in the immediate neighbourhood are the gold-fields of Bure, which like those of Bambuk are worked chiefly by the women. In Bure the surface, everywhere undermined with pits, frequently gives way, and when any of the miners get crushed they are left to their fate, the popular belief being that the evil genius wishes to keep them as slaves in the other world. But a year after the accident the pit is reopened, and if much gold is found collected about the dead, it is concluded that they have been protected from the demons by the good spirits, and the gold is accepted as an indemnity for the loss sustained by the miners.

The hamlet of *Didi*, residence of one of the chief rulers of Bura, was the farthest

point reached in 1869 by Winwood Reade during his exploration of the Upper

Fig. 135. — CASCADE NEAR BAMARU.



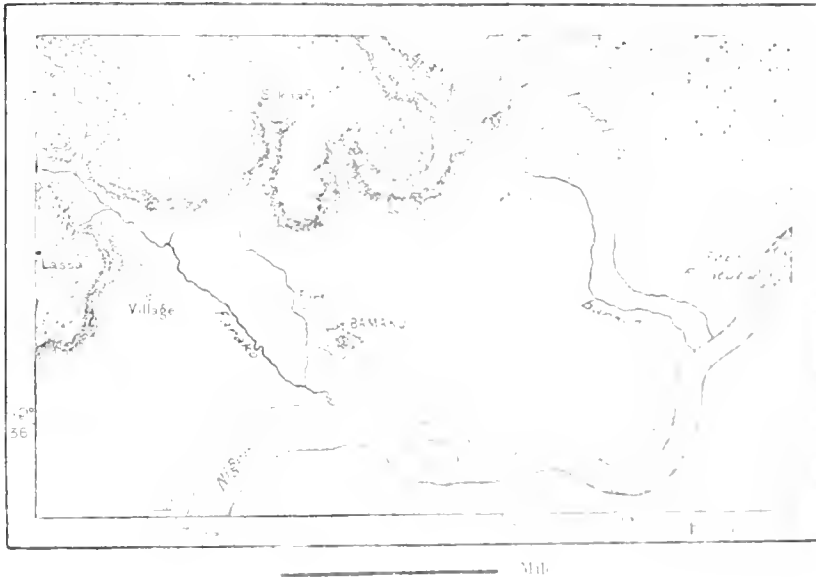
Niger. The government of the whole country, formerly tributary to Segu, but

now "protected" by France, is in the hands of four powerful families, whose members deliberate in common. East of the Joliba the chief market for slaves and gold-dust is *Kankare*, some 60 miles from the banks of the river. *Kaniera*, 24 miles south-east of Falaba, formerly "very large and very rich," was destroyed in 1882 by the army of Samory just four days before the arrival of a French detachment sent to its relief.

The Mandingan state, also now a French protectorate, has some flourishing places on the left bank of the Joliba and in the interior on the waterparting between the Niger and Senegal basins. Such are *Kingaba*, on the Joliba, and *Saba* on a bluff rising above an extensive alluvial plain to the west. *Bamaku* (*Bamako*), formerly a populous trading-place much frequented in the time of Mungo Park, has again

FIG. 10. BAMAKU.

Scale 1 : 100,000.



acquired some importance, the French having chosen it as the capital of their possessions on the Niger. In 1883 the total population of the town and neighbouring hamlets scarcely exceeded eight hundred souls. Yet the little Bambara state had hitherto succeeded in maintaining its political independence. Neither Ahmadu's Toucouleurs nor Samory's Mussulman Mandingoes had been able to capture it when the French appeared on the scene and began to erect the fort. At that time the plain around Bamaku seemed almost unhabited, now it is intersected by routes lined with trees, some plantations have been laid out round about the white walls of the fortress, and the little river in port is already crowded with boats. In 1896 the total exchanges amounted to more than £270,000.

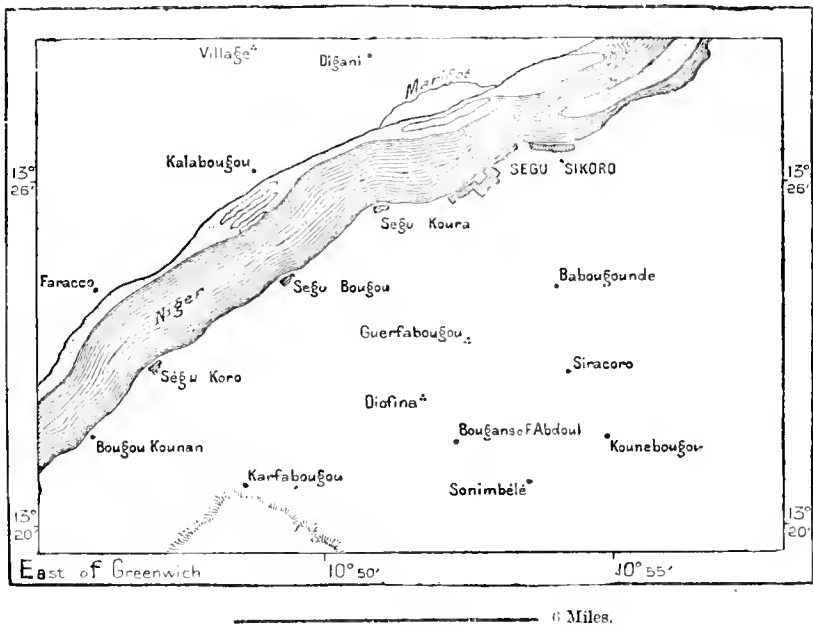
Below Bamaku and the neighbouring Sotaba cascade the first large village

are *Baguinta* on the right and *Kulikoro* on the left bank. Here the French have founded a station to command the communications of the Niger with Bele-dugu, the territory of the Beleri people, which stretches westwards in the direction of the sources of the Senegalese Baulé. This hilly district is inhabited by little communities of republican Bambaras, who had joined in a common confederacy against the Toucouleurs, and thus succeeded in safeguarding their independence till rescued by the French in 1893. In the district grows a species of wild tobacco, which is believed by Barth and many other naturalists to be of African origin.

The ruined city of *Yamina* (*Nyamina*) on the left bank, 60 miles below Kulikoro, belonged till recently to the empire of Segu; but in 1884, on the

Fig. 137.—SEGU.

Scale 1 : 240,000.



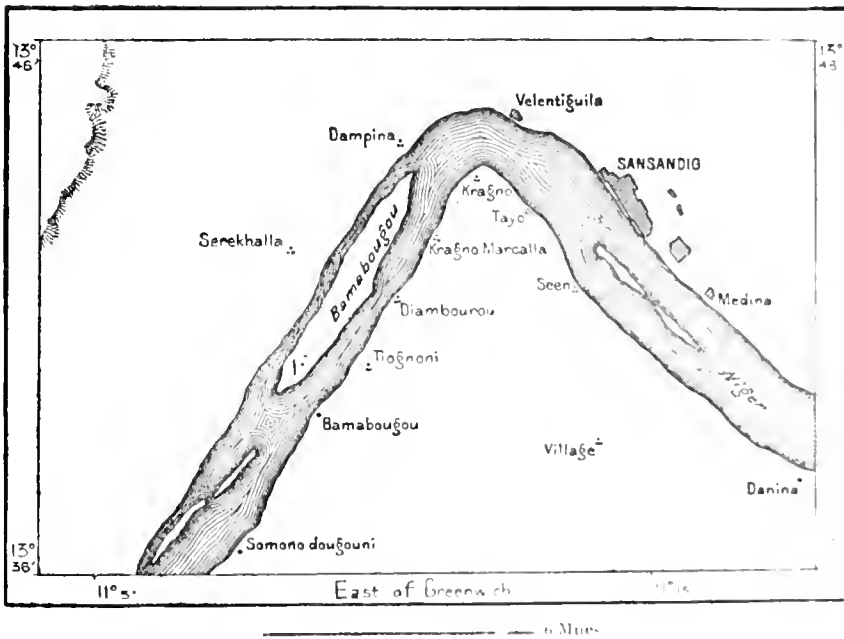
appearance of a French gunboat, its Bambara and Sarakolé inhabitants expelled the Toucouleur garrison, and placed themselves under the protection of France. Yamina is the natural port of all the upper Bele-dugu and Fa-dugir country, as well as of the markets near the desert. Some 30 miles from the river lies *Banaba* with eight thousand inhabitants, nearly all Sarakolés; and on the route leading thence to Kaarta follow some other large villages, and even towns, in a populous district raising far more millet than is needed for the local consumption.

Although in a state of decadence, *Segu* is still one of the great riverain cities of the Niger. Before the overthrow of the Toucouleurs it was the capital of a vast empire, with an area of 200,000 square miles between Kaarta and Wassulu in

one direction, and between Jallonké-dugu and Massina in another; but it occupies such an advantageous position for trade, that however wasted by war and dethroned from its royal state, Segou must always recover from its political disasters, and continue to be a great centre of population and traffic. It lies on the right bank, scarcely 24 miles below the Bakhoy confluence, at the converging point of all the trade routes from the Upper Niger valleys, between Futa-Jallon and the Mahi uplands. The large market of *Kayayé*, about 120 miles to the south-east, is the chief station on the highway leading to the flourishing Mandingan city of Kong. The wars that for the last half century have wasted all the surrounding lands have fortunately

Fig. 138.—SANSANDIG.

Scale 1:270,000.



spared the Segou district, which according to Mage had a population of one hundred thousand in 1865, of which thirty-six thousand appeared to be centred in the city and its outskirts.

Segu really consists of several distinct towns, such as *Segu Koro*, or "*Old Segu*," opposite *Faracco*, *Segu Bugu*, facing *Kalabugu*, *Segu Koro* or "*New Segu*," and lastly *Segu Sikoro*, present residence of the prince and official capital of the state, the whole occupying a space of about 10 miles along the right bank of the river.

Lower down on the same side is the village of *Samono* fishers and boatmen, who, for services rendered to the Toucouleur conquerors, have obtained the monopoly of the riverain industries. But the Toucouleurs themselves are no longer masters of Segou. The foundation of the French military posts in Upper Senegal, the growth of the new Mandingan empire under Samory, and the revolts

in Bele-dugu and conterminous lands, had completely isolated the Toucouleurs of Segu from their own country, when that place was captured by the French in 1890. Since then Segu has recovered much of its former prosperity, and is now one of the most thriving cities on the Niger.

*Sansandig* also occupies a vitally important position on the left bank 33 miles below Segu Sikoro. It was captured by the French about the same time as Segu, and is at present one of the chief strongholds of their Sudanese possessions.

The abrupt bend of the Niger at this place makes it the converging point of the routes from the Sahara, and the natural markets for the inhabitants of Sudan and the northern steppe are situated in the neighbouring zone intermediate between the hills and the plain. Within 60 miles to the north-west lies the great mart of *Segala*, and farther west *Danfari*, that is, the district of *Damfa* or *Dampa*, another Sarakolé town lying at the point of intersection of several highways, and during the dry season much frequented by the Ulad-Mahmuds and other nomad tribes. Danfari, which raises large crops of millet, was a very flourishing country in 1883, when it was visited by M. Bayol and placed under French protection by agreement with the local chiefs.

A still more populous and commercial place is *Murdia*, which lies north of Damfa in the steppe region, where the sands of the desert first begin to encroach on the cultivated lands. The town, containing two thousand five hundred Sarakolés, is encircled by seven Moorish encampments containing at least twelve hundred souls, and the winding streets form a continuous bazaar, where may be purchased carpets, jewellery, embroidered leather-work, and other Mauritanian wares. North-westwards, in the direction of Kaarta, stretches the Bakhunu territory, which forms part of El-Hodh, a zone of transition between Sudan and the Sahara, and for ages a common battle-ground for the surrounding Arab, Bambara, Fulah, and Toucouleur peoples. *Bakniul*, capital of Bakhunu, lies towards the west about 60 miles east of *Nioro*, and between it and Murdia the Sultan of Segu has founded the new market of *Ghiné*, which being free from all custom-house dues, has rapidly acquired great importance. The sedentary population of four thousand is sometimes swollen during market days to fifteen or twenty thousand.

One of the routes leading from Sansandig to the Walata oasis passes through the great city of *Gumba*, Barth's *Kumba*, inhabited by about twenty thousand Bambaras, speaking Arabic and cultivating vast fields of sorgho. Farther east the direct route between Sansandig and Timbuktu traverses the commercial city of *Sokolo*, the *Kala* of the Arabs, in mediæval times one of the capitals of the Mandingan empire, and still containing a population of six thousand. *Fara-bugu*, lying a little to the north, is the most advanced settlement of the Bambara nation towards the domain of the Moors.

In the section of the Niger below Sansandig, flowing for 60 miles eastwards, the chief riverain town is *Sibili*, capital of a petty Bambara state. Farther down, where the river resumes its north-easterly course, lies *Diagarabé*, the farthest





HILLARY OF FULAH (A.P.)



point from Bamaku reached in 1886 by the French steamer plying on the Upper Niger.

Here the waters begin to ramify, one branch passing near the holy city of *Diaka* northwards in the direction of *Tenouka*, one of the large markets in the Burgu territory. Another branch running eastwards leads to the famous old city of *Jenné*, whose name, according to some authorities, is the original of the word Guinoye, or Guinea, assigned by the Portuguese to so large a part of the continent. Now, however, *Jenné*, which was for the first time visited by Caillié in 1828, is a decayed place, reduced by civil and foreign wars, by the stoppage of trade on the river, perhaps also by the shiftings of the fluvial branches in this flat region, where the channels are incessantly changing. The capture of *Jenné* by the French in April, 1893, was an important event in the history of Sudan, its reduction having been followed by the complete submission of the Mohammedan kingdoms of Segu, Bambara, and Massina.

After abandoning *Jenné*, King Sego-Ahmadu founded the new residence of *Hamdallahi*, that is, *el-Hamdu-Lillahi*, or "Praised be Allah," a little to the east of the confluence of the two Nigers. But this new capital of Massina (or Moassina, as Lenz always heard it called), was but short-lived, having been captured in 1862 by the great Fulah conqueror, El-Haj Omar. It is now a heap of ruins, succeeded as the capital of Massina by *Bandiagara*, near the right bank of the Bakhoy, 60 miles east of *Jenné*. But the Massina state never had any political unity, being ruled in one place by a Toucouleur king of the Omar dynasty, in another by Fulah chiefs, and elsewhere occupied by the distinct petty Bambara or Songhai states.

Along the routes running through Massina from *Jenné* towards Timbuktu follow eastwards the towns of *Niakongo*, *Boré*, and *Drcatsa*, all mentioned by Barth's informers; westwards, *Bassikouna*, visited by Lenz in 1880. Below *Moiti*, or *Tombou*, at the confluence of both Nigers, the chief places are *Koua*, the most advanced Songhai settlement towards the west, and beyond Lake Debo the large city of *Youra*, or *Yorara*, which, according to the seasons, lies on a sandy plain or on a marshy bank between stagnant and running waters.

#### THE MIDDLE NIGER.—TIMBUKTU.—THE FULAHS AND SONGHAIS.

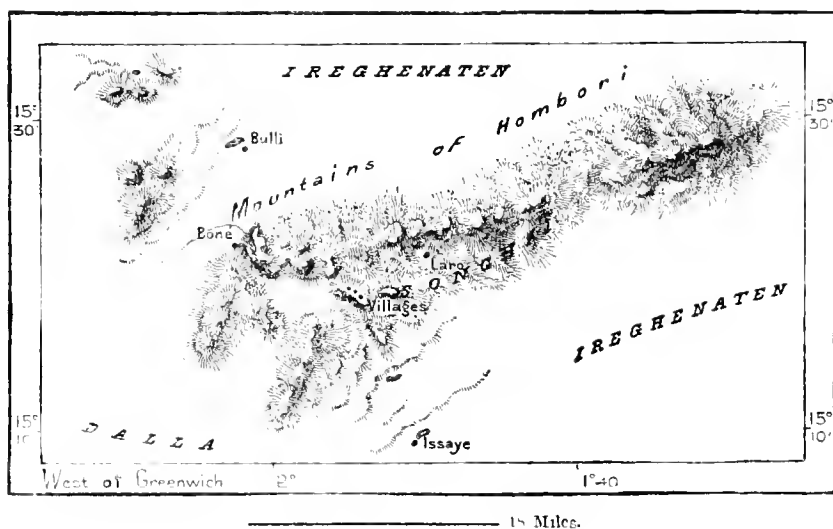
Most of the vast region traversed by the Niger between Timbuktu and Gambia is almost uninhabited, although the southern districts appear in many places to be densely peopled. The country has been visited by Barth alone, who on his journey from Sai to Timbuktu, followed the chord of the arc described by the great eastern bend of the river. South of this bend the El-Hajj, or Hombori Hills, called also in a special sense Toudi, or "The Mountain," form a natural barrier between the arid Saharian and cultivated Sudanese zones. These hills, rising 1,000 or 1,500 feet above the level of the slightly undulating plain, at least 1,000 feet above sea-level, do not constitute a continuous range, but a series of isolated

eminences of fantastic shape, in some places presenting the outlines of vast rocky strongholds flanked with square towers. The natives have even converted them into citadels, where they defend themselves from the attacks of the Fulah conquerors. South of the Hombori Hills the plain is dotted over with some lesser eminences, such as the granite, gneiss, and sandstone Aribinda heights falling abruptly southwards and presenting a more gentle incline towards the north.

The region stretching north-west of Timbuktu in the direction of the Walata and Tishit oases is peopled by Arabs, or at least a half-caste Berber race of Arab speech. Many Arab traders also penetrate across the river southwards to the Hombori Hills. But east of the meridian of Timbuktu the whole of the Saharan region belongs to the Imohagh (Imosharh) Berbers, whose countless tribes are

Fig. 139.—THE HOMBORI MOUNTAINS.

Scale 1 : 900,000.



scattered for nearly 1,200 miles in every direction northwards to the Algerian frontier, eastwards to the neighbourhood of Lake Tsad. Those of the Niger region all belong to the Awellimiden confederation, some still bearing the name of Tademakka (Tademekket), a vanished city which lay west of the Air Mountains. These are kinsmen of the Khumirian Dedmakas, now assimilated in speech and usages to the Arabs.

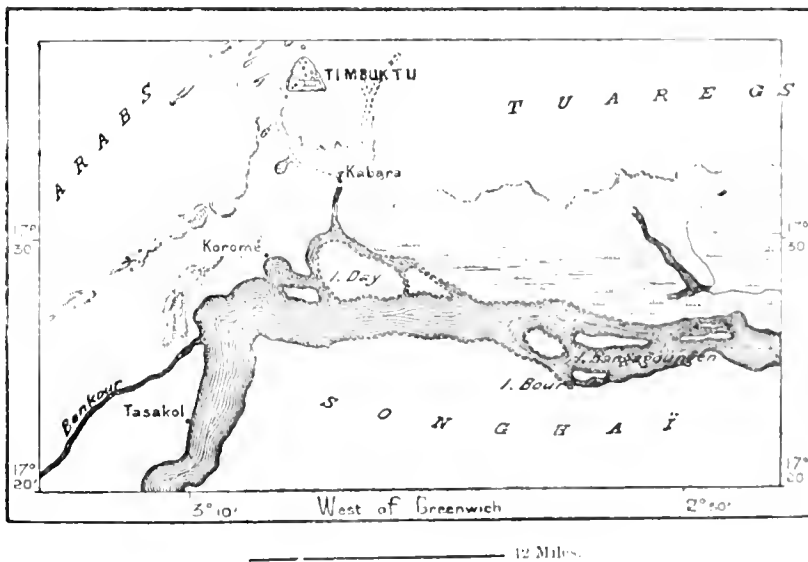
Below Timbuktu the Imohaghs have crossed the Niger and reduced the country far to the south of the river. They not only occupy the sandy tracts and savannas, but have penetrated into the Hombori valleys, and beyond them into the fertile Libtako plains. Here, however, few of them have preserved the camel, faithful associate of all other Tuaregs, breeding horned cattle and sheep instead, and in some places even intermarrying with the native Negro populations. Hence, perhaps, all these southern Berbers have received from their northern kindred the

collective name of Ireghenaten, or "Mixed." They also appear to be gradually adopting the Fulah and Songhai languages, although some amongst them still preserve the Berber type in all its purity. They live almost exclusively on a flesh and milk diet, and like those of Ahaggar are divided into two castes, that of the nobles, whose business is war, and that of their retainers or slaves, tillers of the land.

The Songhais (Sonrhai, Sourhai) occupy both banks of the Middle Niger between Timbuktu and the Sokoto confluence, penetrating far inland within the great bend, where their speech is current as far as the lacustrine district below Jenné. Although now a degraded people, the Songhais had their epoch of splendour and dominion. After overthrowing the Mandingan emperor, enthroned

FIG. 140.—TIMBUKTU.

Scale 1 : 500,000



in Mali, the Songhai chief, Askia, founded in 1492, with Gogo for its capital, a mighty kingdom stretching far up towards the source and down towards the mouth of the great artery and away to the oases of the desert, so that "travellers journeyed six months across his dominions." Askia became the most powerful of African potentates, and to celebrate his triumphs he undertook the pilgrimage to Mecca escorted by his vassal chiefs and fifteen hundred men-at-arms. He was renowned throughout the East for his generous deeds, and he attracted to his court the wise and the learned, who made Gogo and Timbuktu centres of light for all the Negro lands.

But this great empire lasted not quite a hundred years, having at last yielded in 1591 to a small band of Moroccan troops commanded by Jodan, a Spaniard from Almería, and including many other Andalusians equipped with European firearms.

These Moroccan Rumas, as they were called, supplanted the dynasty of Askia, their power extending to Bakhumu, Jenné, and the Hombori Mountains. But all relations soon ceased with the mother country, and the Rumas, intermarrying with the natives, gradually lost their supremacy, although down to the beginning of the present century still controlling the navigation of the Niger a long way above and

Fig. 141.—EL-HAJ ABD-EL-KADER, ENVOY OF TIMBUKTU.



below Timbuktu. Then came the conquering Fulahs, founders of the Massina empire, and the nomad Tuaregs, who planted themselves on both banks of the river, so that the Songhais are now almost everywhere subject to peoples more powerful than themselves.

But notwithstanding their political decadence, their speech, the Kissur or Ki-

Songhai of Timbuktu, is still widely diffused, although largely affected by Arabic elements. The Songhais are of nearly black complexion, with delicately chiselled features enframed in long kinky hair. Some tribes are distinguished by special tattoo marks, and in the eastern districts the women wear a metal ornament passed through the cartilage of the nose. In their present degraded state the Songhais are a dull, sullen, unfriendly people, described by Barth as the least hospitable of all the Negroes he came in contact with during all his long wanderings. On various grounds this writer argues that they at one time had relations with the Egyptians, a theory which receives some support from their practice of embalming and from their domestic architecture.

#### TOPOGRAPHY.

*Timbuktu* (*Tombuktu*), the most famous city not only in the Songhai country but in all central Africa, is known only to Europeans by this name, the true Songhai form of which appears to be *Tumbutu*. It is said to have been founded in the fifth century of the Hegira by the Tuaregs, who more probably captured it at that period. Mention is made of it at the time of the Ghana empire, in the eleventh and twelfth centuries, and later under the dominion of the Su-Sus. But such is its position, at the sharp angle formed by the Niger at the converging point of so many side branches, that here or hereabouts a market-place must always have existed.

Under the Mandingan kings of Mali (Mellé) in the fourteenth century, Timbuktu was a rich and flourishing place, whose fame was spread far and wide, thanks to its great trade in gold and salt. The name of *Timbuctu* occurs for the first time on a Catalonian map of 1373. But a city containing so much treasure could not long escape pillage. It was plundered in the fifteenth century by the Tuaregs and Songhais, and a hundred years later by Jodir's Andalusian fusiliers, after which time it was frequently contested by Tuaregs, Fulahs, and Toucouleurs.

After the Toucouleur occupation of 1863, no further attempt has been made to resist the attacks of the surrounding peoples, the municipal authorities paying tribute now to one, now to another, until they were relieved from further exactions by the arrival of the French in 1891. Although Colonel Bonnier at the head of a small flying-column entered the city without resistance, several attempts were afterwards made by the Tuaregs to expel the French. But all opposition has ceased since their defeat in September, 1897.

The population, estimated by Barth at thirteen thousand in 1853, and at twenty thousand by Lenz in 1880, consists chiefly of Arabs from Morocco, of Berabish Arabs, of Songhais, Tuaregs, Mandingans, Bambaras, and Fulahs, besides a few Jews, tolerated since the middle of the present century. Apart from Portuguese envoys in the fifteenth century, and European captives in later times, Timbuktu had been visited before the French conquest only by Laing in 1826, by Caillié in 1828, by Barth in 1853, and by Lenz in 1880. It seems probable that the relations opened with France, by the despatch of an envoy to

Paris in 1884, will be increased with the growth of trade between Bamaku and the riverain ports lower down. The Niger at this point was reached by a French gunboat from Bamaku for the first time in 1887. Now the river is regularly patrolled both above and below Kabara.

Timbuktu lies 9 miles north of the Niger on a terrace or escarpment of the desert about 800 feet above the sea. Formerly a navigable lateral branch reached the foot of this escarpment, and in 1640 a low-lying quarter of the city was even inundated. But the channel has gradually silted up, and even during the floods boats can now reach no farther than the basin of *Kabra* (*Kabara*), the port of Timbuktu on the Niger. Both port and city have greatly diminished in size, and travellers arriving from the north and west now traverse extensive spaces covered with refuse. The position of the great mosque, formerly in the centre, now near the outskirts, also shows how greatly the place has been reduced in recent times. This mosque, dominated by a remarkable earthen tower of pyramidal form, is the only noteworthy monument in Timbuktu, which consists mainly of a labyrinth of terraced houses and huts with pointed roofs.

Notwithstanding its decayed state, Timbuktu is still the centre of a considerable transit trade between the desert and Sudan, the salt from Taudeni and other Saharian deposits being here exchanged for millet, kola-nuts, textiles from the southern regions, and even European wares penetrating up the Niger. Cowries, hitherto the general currency, are being gradually replaced by five-franc pieces, a sure indication of the growing influence of the French in the Upper and Middle Niger basin. The local industries are almost confined to the manufacture of those leathern pouches and amulet bags which are distributed throughout the Sudanese markets from *Walata* or *Biru*, the northern rival of Timbuktu. *Walata*, already a famous market in the fifteenth century, is the chief station on the roundabout trade route between Timbuktu and Saint Louis, which had to be followed from oasis to oasis when the natural highways up the Niger and down the Senegal were closed by local wars.

The municipal administration of Timbuktu is entrusted to a *kahia*, or hereditary mayor, a descendant of one of those Andalusian "Rumi" captains who contributed to overthrow the Songhai empire. But the authority of this official was formerly controlled by a Tuareg chief, and by the family of the Bakhai marabouts, who have adherents in every part of the Sahara, and even in Mauritania. Timbuktu is also a learned city, with rich libraries and expounders of the law, who dispute on points of dogma with the same subtlety as the mediæval Christian theologians.

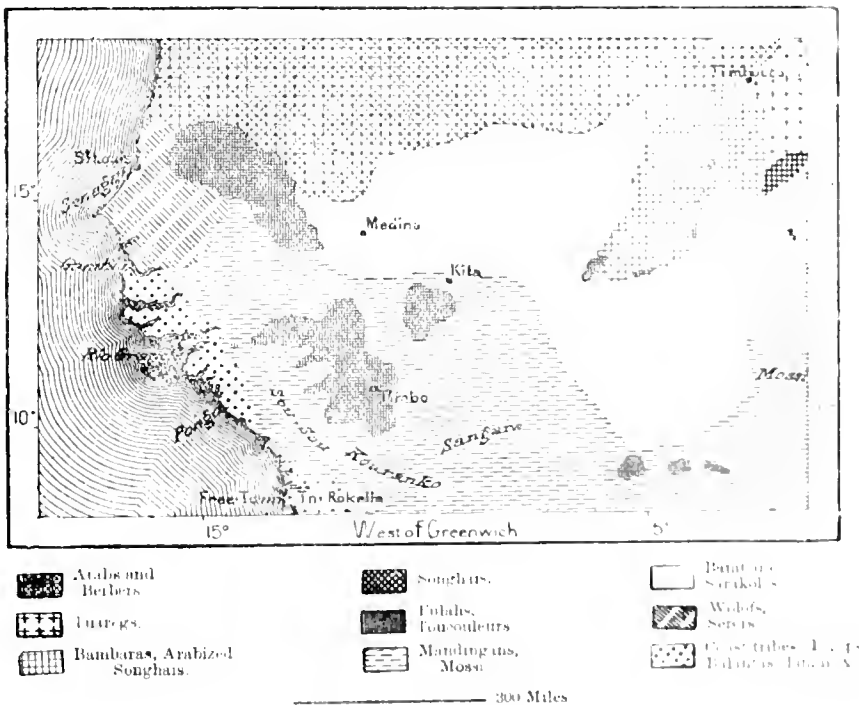
*Gogo* (*Gao*, *Garho*), capital of the old Songhai empire, 60 miles south of the Burum district, had formerly a circumference of over 6 miles, comprising a pagan quarter on the west, and a Mohammedan on the east bank, besides an insular quarter between the two fluvial branches. At present little remains of all this except three hundred round huts scattered amongst the palm-groves on the left side, and a minaret like that at Agadès, a kind of massive pyramid 50 feet high disposed in seven compartments, beneath which Askia, founder of the ephemeral Songhai empire, lies buried.



Below Gogo, both banks are almost uninhabited for a distance of 180 miles, when some large villages and cultivated tracts announce the approach to the twin cities of *Garu* and *Sinder*, standing on some rocky islets in mid-stream. On both sides of the river the plain is here studded with habitations, and yields an abundance of millet for the local consumption and for exportation to Timbuktu and the Tuareg country. The two insular cities comprise altogether several thousand houses, with a collective population estimated by Barth at sixteen or eighteen thousand. They enjoy a certain political independence, by taking advantage of the rivalries of the neighbouring Tuareg chief and the Haussa governor of Say, over 120 miles lower down. The route through the independent Songhai territory, west of Sinder, leads to *Doré*, capital of Libtako, a province belonging to

Fig. 112.—THE RACES OF WEST AFRICA.

Scale 1:18,000,000



least nominally to the Haussa kingdom of Gando. *Doré*, with a population of four thousand, mostly Songhais, is the most frequented market in the whole region comprised within the great bend of the Niger.

The town of *Say*, meaning in the Songhai language "River," stands at the chief passage across the river below Burum. The transit is made in boats 10 to 45 feet long, formed by two hollow trunks placed end on end. The town lying on the low west bank exposed to inundations during the floods, consists of detached groups of huts divided into two sections by a depression alternately dry and filled with muddy water. It owes its importance chiefly to the intermediate position it occupied on the trade route between Sokoto and Timbuktu. It is also the natural

outport for the Mossi (Moré-ba) country, which stretches south-westwards in the direction of the Kong uplands. The Mossi people are apparently allied to their Tombo neighbours in the north-west, and to the Gurmas in the north-east, all speaking dialects of a common idiom. They are a historical nation, already mentioned in the fourteenth century, when a Mossi army crossed the Niger and seized Timbuktu. From reports received during their early explorations on the seaboard, the Portuguese fancied that the Mossi king was the famous Prester John, and envoys were actually sent in search of him. When summoned by the Songhai emperor Askia to embrace Islam, the Mossi people "after consulting the souls of their ancestors," refused to comply, thus bringing on a "holy war," in which their cities were destroyed and their lands wasted by the arms of the fanatical monarch. Nevertheless they have remained pagans, except in the towns, where foreign influences are predominant. Their territory is grouped in numerous petty autonomous states with a federate organisation, each paying a slight tribute to the prince of *Woghodogho*, the central city of the country. They are active traders, visiting all the surrounding fairs, where they are easily recognised by their coloured shirts and enormous straw hats, like those of the Kabyles in South Mauritania.

By the Agreement of August, 1890, Say became the frontier station of the French and English sections of the Niger, while a line drawn from that place to Barwa (Barrua) on Lake Chad marked off the respective spheres of influence of the two Powers east of the Niger. But by the treaty of June, 1898, this line was shifted at its western extremity from Say southwards to *Ilo* above Busa, thus transferring a considerable stretch of the main stream from England to France.

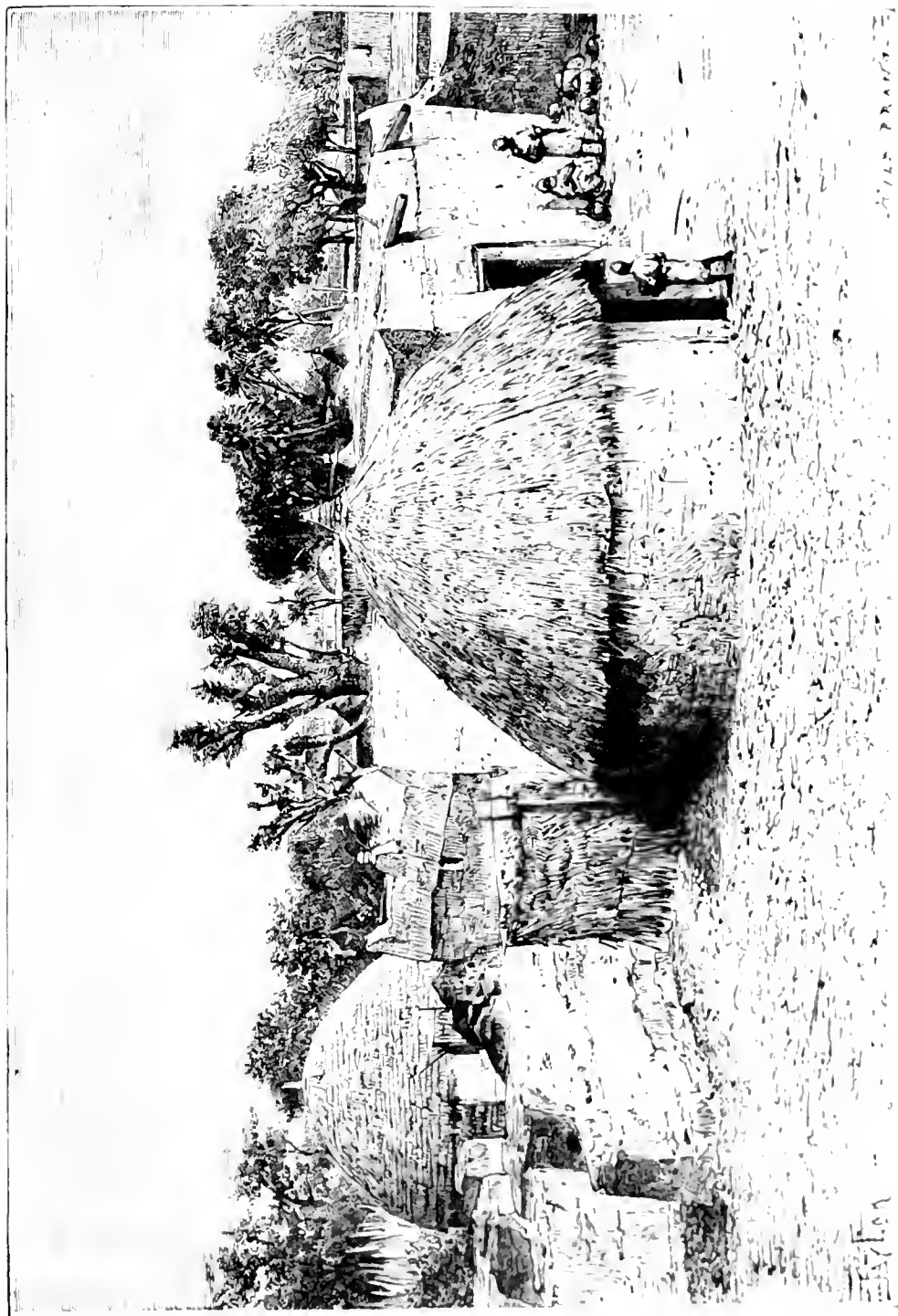
#### HAUSSA LAND.

Haussa, probably the Tuareg Aussa, that is Cis-Niger, in contradistinction to Gurma and Aribinda, meaning Trans-Niger, is a well-defined natural region watered by the Sokoto, and limited north by the Sahara, east by the Tsad basin, south by the Benue waterparting, and west by the Niger. But these frontiers, scarcely anywhere presenting serious obstacles, have been frequently crossed at several points, and while various African races have settled in Haussa-land, the Haussawa themselves have occupied vast territories beyond their central domain, so that the political boundaries have constantly oscillated with fresh conquests and migrations. At present this region, one of the richest and most densely peopled in Sudan, enjoys a preponderating influence over all the surrounding lands. It commands numerous states beyond its natural limits, while its language, regarded by the local populations as the medium of trade and culture in a pre-eminent sense, has been diffused throughout the greater part of Sudan.

Hence in describing Haussa it is impossible to exclude some of the adjacent lands presenting the same climatic and ethnical conditions, and sharing in the same political destinies. The area of the whole region, comprising all the fluvial basins flowing to the main stream between the Sokoto and Benue, may be approximately estimated at 160,000 square miles. Notwithstanding certain rough

estimates of ten millions and even twenty millions, according to the descriptions of

Fig. 143.—SOKOTO—VIEW TAKEN IN THE INTERIOR.



Barth, Rohlfs, and other travellers, the population, excluding the Benue basin, can scarcely be calculated at more than eight millions.

Towards the east, the Niger basin is separated by no continuous or clearly defined divide from that of Lake Tsad, although the waterparting is doubtless more distinct than that between the Shari and the Benue, where certain marshy and lacustrine tracts seem to belong to both systems at once. In East Haussa the slopes are so imperceptible that in many places it is difficult to determine to which basin belong the running and stagnant waters which persist throughout the dry season. But the region of the divide is strewn with numerous sharp or rounded granite rocks, between which the rich humus supports an exuberant vegetation of palms and leafy trees scattered in picturesque clusters amid a labyrinth of bluffs and boulders, from which the groups of huts or houses cannot always be easily distinguished.

Owing to the absence of a decided incline the waters have in many places failed to develop a fluvial system, but are collected in lakes or lagoons, which rise and fall, expand or disappear, according to the seasons. Even where the annual rains have carved out continuous channels, the streams for over half the year are reduced to a line of shallow waters, separated by intervening sandbanks. In its lower reaches alone the Sokoto presents an uninterrupted current, but even here winding so sluggishly over its pebbly bed, that the waters become unwholesome for man and beast. The rainfall, however, differs greatly in quantity in the two sections of the basin, one bordering on the Saharian steppes, the other comprised within the zone of Sudan. In this region the transitions are very abrupt from the dry to the wet zone, and while the rains are rare in the northern city of Sokoto, they are very copious at Gando, only 40 miles farther south. During the wet season the whole country becomes almost impassable, the rivers overflowing their banks, the saturated highways changing to quagmires, treacherous morasses filling every depression. Thanks to its arboreal vegetation, the southern section of the Sokoto basin presents a smiling aspect throughout the year, while in the north in many places nothing is visible in the dry season except parched and arid steppes.

#### FLORA AND FAUNA.

As in Senegal, the landscape derives its distinctive character from the tamarind, baobab, and other giants of the vegetable kingdom. The three species of palm, the date, dâm, and deleb, marking distinct zones in North Africa, are here found flourishing side by side in some districts. The butter-tree is common in some parts of Sokoto, while others are noted for their forests of doria (*parkia*), whose parched seeds, prepared in the form of cakes like chocolate, form an important article of export to the northern districts, where the tree is rare, and to the Tsad basin, where it is not found. The banana, wrongly said to follow the Negro across the whole of Sudan, is absent in the region some 600 miles wide intervening between Adamawa and Gando, but is very common and of excellent quality in the western part of Haussa. Rice is the cereal in a pre-eminent sense throughout the Sokoto basin, although unknown in Bornu, farther east. Onions are of exquisite flavour, and everywhere form an important article of diet. Of industrial

plants the most widely spread is cotton, as, according to the statements of Leo Africanus, it already was in the sixteenth century.

Wild animals of large size have mostly disappeared from the central parts, but considerable herds of elephants are still met in some of the most remote districts, while the maneless lion of the Sahara infests the steppe lands about the Niger. The chief domestic animals are goats, all of a uniform brown, and horned cattle, all of a pure white colour. Bee farming is actively carried on, the hives, formed of hollow branches, being generally suspended from the boughs of the baobab. In the low-lying and marshy tracts the mosquitoes are an almost intolerable plague, far more dreaded than any beasts of prey. But in some places the people have devised an ingenious plan to escape from these pestiferous insects. At some distance from their huts they prepare a retreat placed 10 or 12 feet above the ground under a conic shed supported on stakes. This retreat is kept completely closed during the day, and at night they gain access to it by a ladder, suddenly closing the door behind them, and thus escaping from the buzzing swarms of their tormentors.

#### INHABITANTS.

The Haussawa, or "People of Haussa," claim to have come from the north, and the Goberawa, formerly dominant in the Air Mountains, certainly belong to this group. In their mythical genealogy the name of their great ancestor would seem to imply a servile origin for the whole race except the "sons of Gober." The traditional home of all the family is the divide between the Sokoto and Tsad basins, and more particularly the eastern watershed, whence they spread gradually westwards. According to the legend the Haussa family comprised seven "legitimate" sons, to each of whom was assigned a special department of the public service. Thus Gober, the warrior of the north, was required to defend the land; Kano in the same way became the dyer, Katsena the trader, and Seg Seg, in the south, the slave-hunter. Then the family was further increased by seven "illegitimate" children, outsiders of different speech, but who understood the Haussa language. These are the inhabitants of the Lower Niger and Benue, still regarded as strangers and inferior in nobility to the Haussawa proper.

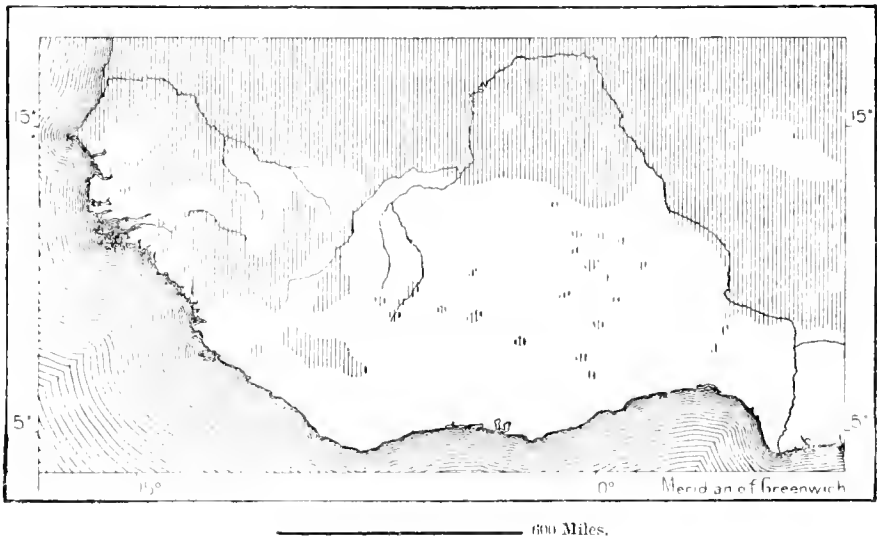
While the domain of the latter is scarcely 50,000 square miles in extent, their language is spread over a region five or six times more extensive. Richardson called it "Sudanese," as if it were the universal speech of Sudan; and it is certainly dominant in the whole region comprised between the Sahara, Lake Tsad, the Gulf of Guinea, and the Kong Mountains. It is even current in all the surrounding markets and amongst the Negro communities in Tripoli, Tunis, and Algiers. Its structure is agglutinating with prefixes and postfixes, and for harmony, wealth of vocabulary, simplicity and elegance, it certainly deserves to take a foremost rank amongst the languages of Africa. Its literature is mainly restricted to religious works, grammars, and dictionaries composed by Europeans; but the Haussawa also possess original manuscripts, written in the Arabic character, some of which were published by the Rev. C. H. Robinson in 1896. Haussa, which is said to be spoken

with the greatest purity in Katsena, is affiliated by some authorities to the Kanuri of Bornu, while also presenting some marked affinities with the Berber family.

The "Seven Children" do not all belong to the fold of Islam. At the time of Barth's journey, the Goberawa of the north still continued to reject the Mussulman teachings, while the others seemed to be animated by little zeal for the faith. In this region the work of religious propaganda has been reserved exclusively for the Fulahs, who were long settled here as pastors, and most of whom by the eighteenth century, if not earlier, had already embraced Moham-medanism. Scattered throughout the Haussa lands they had become very numerous, but had nowhere acquired political power before the war of 1802, when the Sheikh Dam-fodié Othman encouraged his brethren to form themselves into *jemâts*, that is, religious and military communities, for the purpose of propagating

FIG. 144.- RANGE OF MOHAMMEDANISM IN CENTRAL AFRICA.

1 : 30,000,000.



the faith with the sword. After numerous reverses the Fulahs triumphed at last over the Haussawa, founding a vast empire which stretched as far as the sources of the Benue.

Amongst the pretended Fulahs of Sokoto, there are many of different stocks who belong to the conquering race only through social and political alliances of long standing. Such are the Sisilbé or Sillebawa, descendants of the Wakoré or eastern Mandingans, who speak both Pular (Fulah) and Haussa, having long forgotten their mother tongue. Such also, but of inferior caste, are the Lahobe of Senegal, and the Soghorans or Jawambés of Sokoto. The Torodos or Torobés, akin to the Senegalese Toucouleurs, but reckoned amongst the eastern Fulahs, constitute a religious and military aristocracy.

The Toucouleurs of Sokoto are also a mixed race, in which the Wolof element is said to be as strongly represented as in Senegal. It was on this fact of the

presence in Sokoto of a half-caste Wolof people that Barth assigned a western origin to the Fulahs. One thing is certain, that these nomad pastors and husbandmen easily shift their camping-grounds, driving their flocks for hundreds of miles from pasturage to pasturage, but also as readily settling down permanently in any favourable localities where they can make themselves masters. Thus are

Fig. 145.—A SOKOTO FULAH—BROTHER OF THE SULTAN.



explained the constant modifications of the ethnological map of the Fulahs in Sudan.

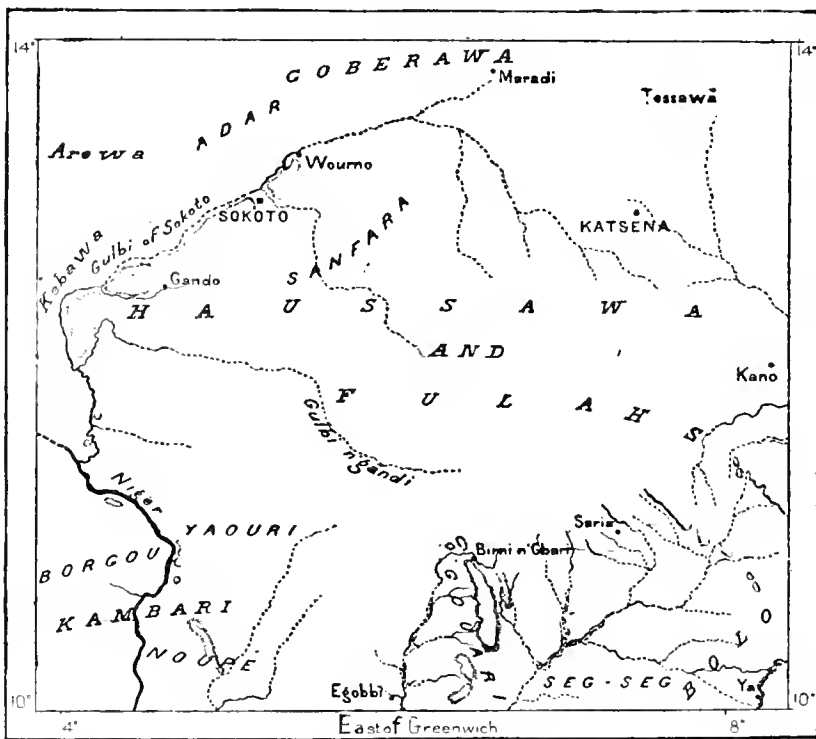
In the province of Kebbi, the Songhais, here known by the name of Kabawa, occupy most of the triangular space comprised between the Niger and the river valleys descending from the Tuareg territory. The Tuaregs themselves are also very numerous in Haussa, where the province of Adar (Tadlari), in the north, has already been to a great extent Berberised. The national litzani, or veil, has been adopted as a sign of nobility even by many Fulahs and Haussawa without any strain of Tuareg blood.

The vast Fulah empire, founded by Othman at the beginning of the present

century, is now divided into two kingdoms—that of WURNO in the east, comprising portions of the Tsad and Benue basins, and in the west GANDO, which stretches beyond the Niger as far as the Mossi territory. About the middle of the century the Fulah power seemed already on the wane, and Barth anticipated a speedy restoration of the former political status. The empire, however, still holds together, at least as a British protectorate, the Sultan and all his vassals having signed treaties to that effect in 1885. Since the return of peaceful times, the central provinces, both in Gando and Sokoto, have even made surprising progress in material prosperity. Joseph Thomson speaks with admiration of the commer-

Fig. 146.—INHABITANTS OF HAUSSA.

Scale 1 : 5,000,000.



cial activity of the inhabitants, and compares the incessant traffic on the highway between the cities of Gando and Sokoto to the stir and bustle about an anthill. The horizon is bounded by large villages, each as populous as towns elsewhere.

The towns themselves appear at a distance like groves or thickets, every house possessing its wide-branching tree, while the old forests have disappeared from the well-cultivated plains. The frequent national or dynastic wars have compelled the people to surround their towns with walls and ditches, with gates flanked by strong towers. *Kurrafi*, some 30 miles south of Katsena, may serve as a model in this respect. Built in the middle of the century as a refuge for eight or nine



thousand persons rendered homeless by the destruction of their dwellings. Kurreti rests on one side against a granite cliff, and is defended on the other by a triple wall and two broad moats. These defences are broken only by two gateways, so disposed as to compel the enemy to wind a long way between walls pierced with loopholes. The chief approach is further masked by an outer *place d'armes*, also surrounded by a double ditch.

Industry is very active in the large Haussa towns, where the division of labour has given rise to numerous guilds of potters, weavers, dyers, tailors, saddlers, masons, smiths, jewellers, and other craftsmen. The bazaars are well-stocked, and the din of the workshops everywhere intermingles with the cadenced voice of the scholars reciting their lessons from the Koran. Labour is held in honour in these Nigritian cities, and although slavery is not yet abolished, the number of slaves is diminishing, as in many provinces they are seldom allowed to marry, and slave-hunting expeditions to keep up the supplies are now less frequent, thanks to the spread of Islam.

#### TOPOGRAPHY OF HAUSSA LAND.

The Damerghu country, which, in the speech and culture of its inhabitants, must be regarded as forming part of Haussa Land, belongs to the zone of transition between the Sahara and Sudan. Here the tamarind and other large trees find their northern limit, and here cotton and other economic plants cease to be cultivated. The fields are still watered by regular rains, but not always in sufficient quantity to prevent injurious droughts. This province, inhabited by mixed Berber and Negro peoples, is dotted over with numerous villages; but when visited in 1851 by Barth and Overweg it did not contain a single city.

The region stretching south of Damerghu belongs, not to the Niger, but to the Tsad basin. Here *Daura*, capital of the district of like name, 90 miles north-east of Katsena, is the metropolis of the oldest of the "Seven Haussas." Before the Mohammedan invasion it was also the residence of Dodo, the chief Haussawa deity, overthrown in single combat by a doughty champion of Islam.

*Tessawa*, which in the Tsad basin lies nearest to the source of the Yeu, might be taken as a type of most Haussa towns. While the open plain is bare and monotonous, the enclosure is full of large trees overshadowing the houses and cultivated spaces. The inhabitants of Tessawa, as well as of the neighbouring *Gossenako* and *Gassawa*, are mostly half-caste Tuaregs engaged in trade and dyeing.

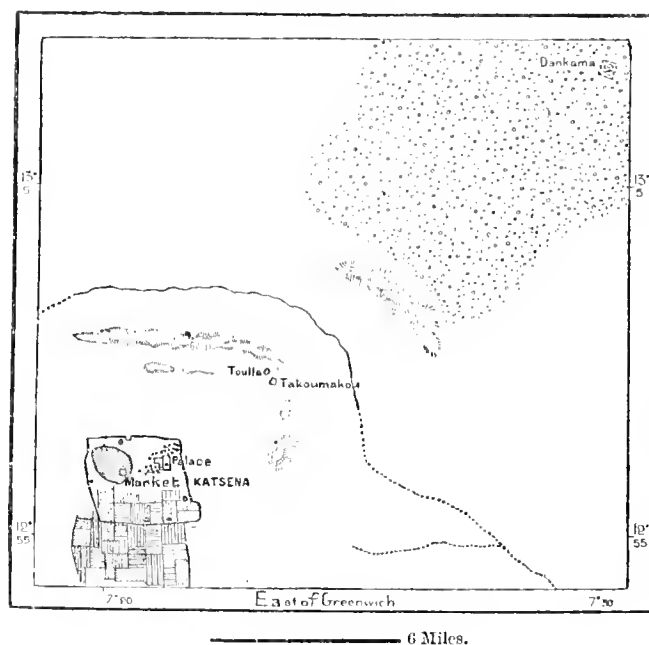
*Katsena*, capital of an eastern province and formerly a royal city, lies near the head of an intermittent stream flowing eastwards through the Yeu to Lake Tsad. In appearance Katsena is one of the great cities of Africa, with walls 30 feet thick, 35 to 40 high, and over 13 miles in circumference. But most of the enclosed space is now occupied with ruins, fields, and gardens, the houses and market being grouped in the north-west, the palace with a few scattered buildings in the north-east corner of the irregular rectangle. In the sixteenth century, and pre-

bably earlier, Katsena was a centre of civilisation frequented by strangers from all quarters, and at that time the kings, although nominally vassals of Bornu, were practically independent. They offered a heroic resistance to the Fulahs, the siege of the capital lasting from 1807 to 1814, and accompanied by a frightful famine, during which carrion birds, lizards, and snakes, were sold at exorbitant prices. After its capture the Fulahs showed no mercy to the inhabitants, and endeavoured to efface all traces of their ancient independence, burning the historical records and razing to the ground the town of *Dankama*, where the king had taken refuge after the siege.

*Kano*, at present the largest place in east Haussa, lies within the Tsad basin at the foot of the Dala rock, which was formerly crowned by a citadel. Like Katsena

Fig. 147.—KATSENA AND DANKAMA.

Scale 1 : 390,000.



it consisted originally of a number of villages, which were all enclosed within carefully preserved ramparts 15 miles in circumference. Towards the south are still visible the remains of a still more ancient enclosure now covered with houses. Scattered over the irregular oval space within the walls are several flooded depressions, the largest of which extends 2 miles east and west, but is crossed in the middle by an isthmus, or "bridge," leading north to the great market-place.

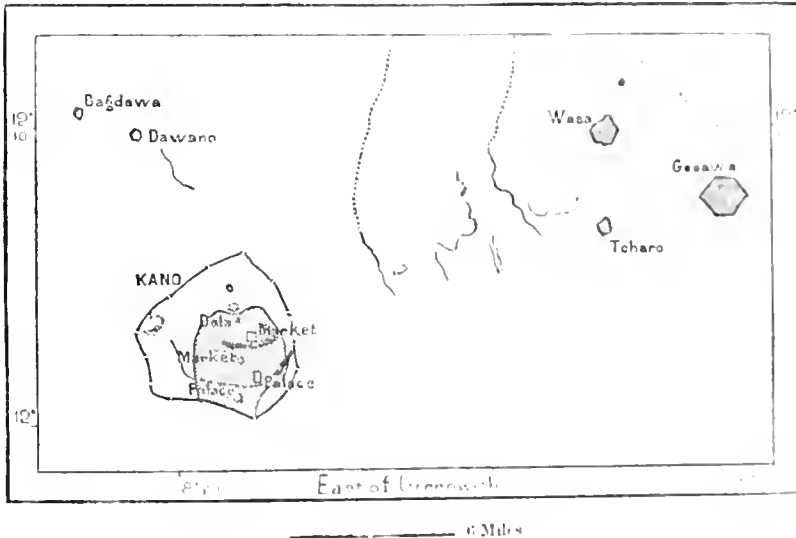
Kano rose to importance only after the fall of Katsena, when traders were obliged to remove the centre of their operations to this place. Inside the walls it occupies at least 10 square miles, peopled by immigrants of every race, each residing in its own quarter. Kano carries on an active trade, especially in cotton fabrics woven and dyed by the people themselves with the cotton and indigo

raised on the surrounding plain, which has been called the "Garden of Sudan." Other products of the highly developed household industries, such as shoes, sandals, leather pouches, are exported far and wide, and large quantities of cereals, after supplying the local wants, are also available for the foreign markets.

East of Kano the most important places depending politically on Haussa are *Gerki*, near the Bornu frontier, and *Katagum* on the river of like name flowing intermittently to the Yeu. On the water-parting near the Niger and Tsad basins to the west of Kano lies the picturesque town of *Kammam*, one of the most industrious in Haussa, producing cotton stuffs highly esteemed for their durability and remarkably bright colours. *Surmi*, capital of Sanfara, near the source of the Sokoto, is still a populous place, although it has suffered much from its constant feuds with its rival *Maradi*, capital of Gober. Farther west, on the route to Sokoto,

Fig. 148.—KANO.

Scale 1:450,000.

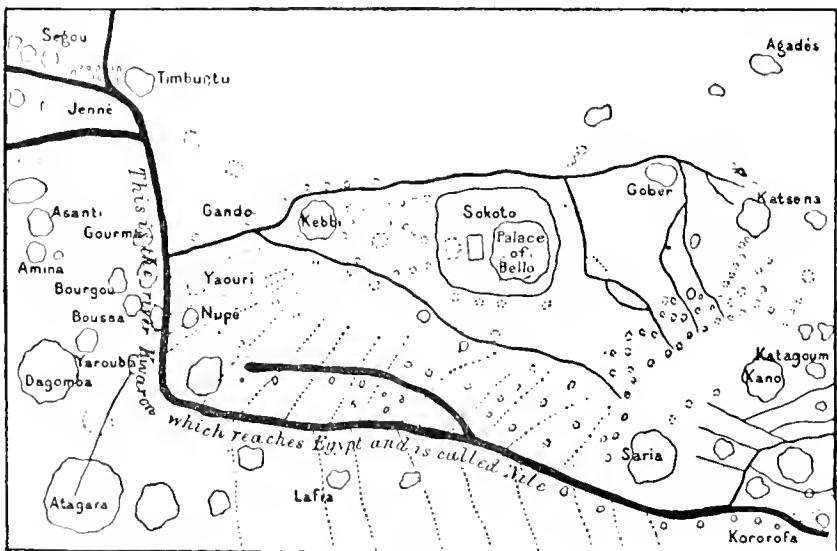


follow *Duchi*, lost amid a labyrinth of rocks; *Sansane Aissa*, one of the strongest places in the empire; *Alkalawa*, formerly capital of Gober, on the banks of the Sokoto at the northern verge of the dense forest of Gandumi; lastly, *Konni*, one of the chief places in Gober, two days to the north-west.

*Wurno*, present residence of the Seriki n' Musulmya, or "Sovereign of the Mussulmans," occupies a splendid site on an isolated sandstone bluff rising 130 feet above the surrounding valleys. At its northern foot flows the river which is formed by the confluence of the Surmi and Maradi, and which lower down takes the name of Sokoto, from the city which preceded Wurno as the capital of the Fulah empire. Like Wurno, *Sokoto* stands on a sandstone rock overlooking a valley watered by a perennial stream. This river, which flows eastwards, is the *Gandi* or *Bakura*, so named from two important towns on its banks. A little to

the north of Sokoto it falls into the main stream, Sokoto thus occupying the converging point of several natural routes leading east to Kano, Katsena, and Lake Tsad, and west to the Niger. The ramparts, built by Sultan Bello at the beginning of the present century, form a perfectly regular square 3,000 yards long on all sides. The map which Bello gave his visitor Clapperton, and on which are figured in perspective all the surrounding lands as far as the market of *Atagara* on the sea-board, attests the importance which his capital had in the eyes of the chief of the Fulah conquerors. When the Fulah empire was at the height of its splendour the space comprised within the lofty ramparts of Sokoto was occupied by a compact population of a hundred and twenty thousand souls. But twenty-five years afterwards it was estimated by Barth at no more than twenty thousand, and since then it has still further diminished, owing especially to the unhealthy atmosphere

Fig. 149.—PLAN OF SOKOTO AND MAP OF HAUSSA, DRAWN BY SULTAN BELLO.

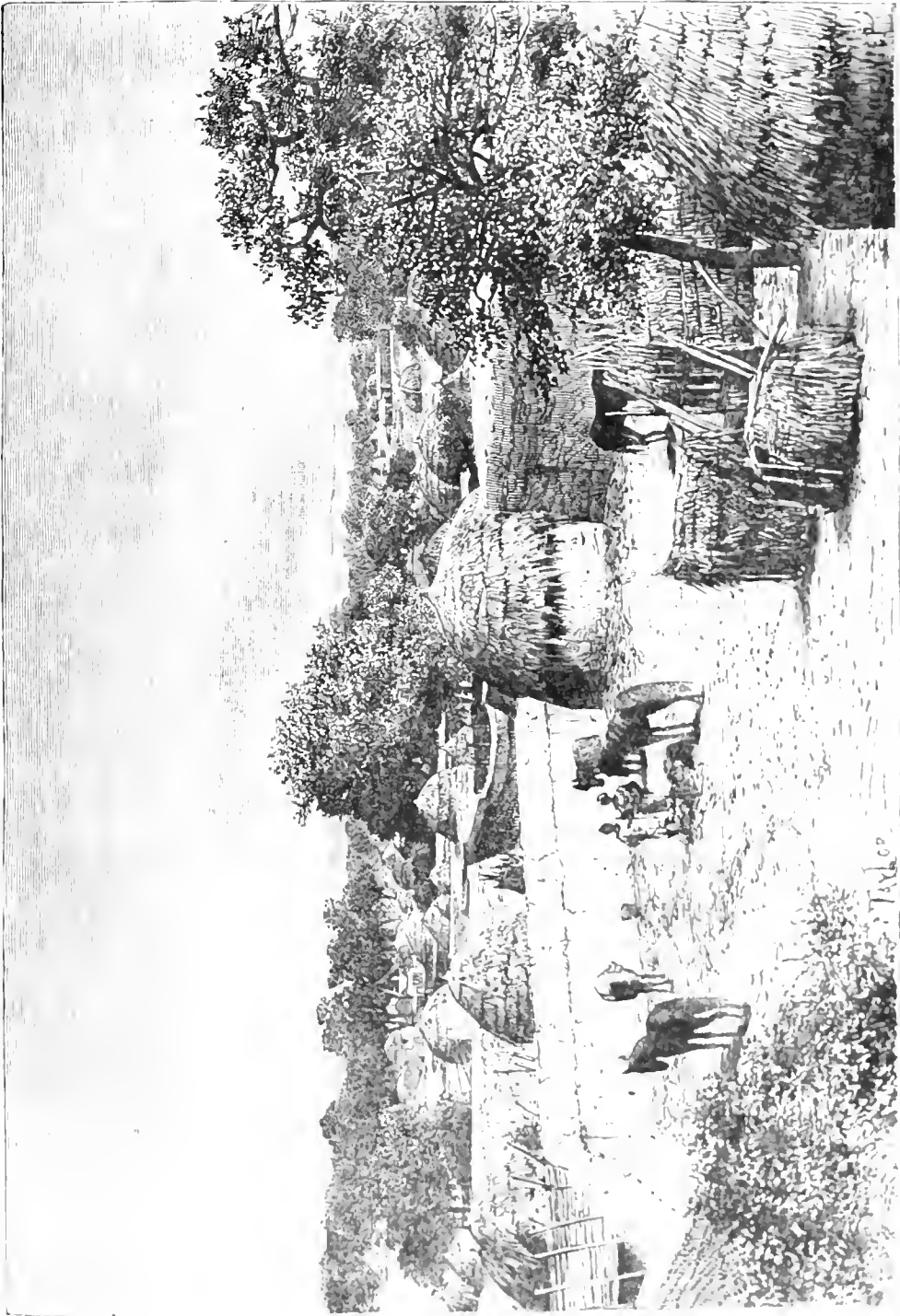


of the place. Most of the inhabitants are Sisilbé Mandingans, industrious artisans famous for the excellence of their embroidered leatherware, textiles, dyes, arms, and implements. A Fulah slave on his return from Brazil established near Sokoto a small sugarcane plantation and a refinery, a remarkable instance of the influence already exercised by the New World on the civilisation of the Old. A separate quarter of Sokoto is inhabited by Arab traders from Rhat and Ghadames, and enterprising English dealers have also made their appearance in this great market of Central Africa, which was first visited by Clapperton. Here this famous traveller died in 1827, and was buried in a neighbouring village by his companion Richard Lander.

The decayed city of *Shifawa* (*Sifawa*), 18 miles south of Sokoto, is a historical place, where the founder of the Fulah empire resided for some years. *Gando*, 36 miles farther to the south-west, was also one of Othman's residences, and is now

the capital of West Haussa with all its dependencies west of the Niger as far as

Fig. 150.—WURNO.—VIEW TAKEN IN THE INTERIOR.



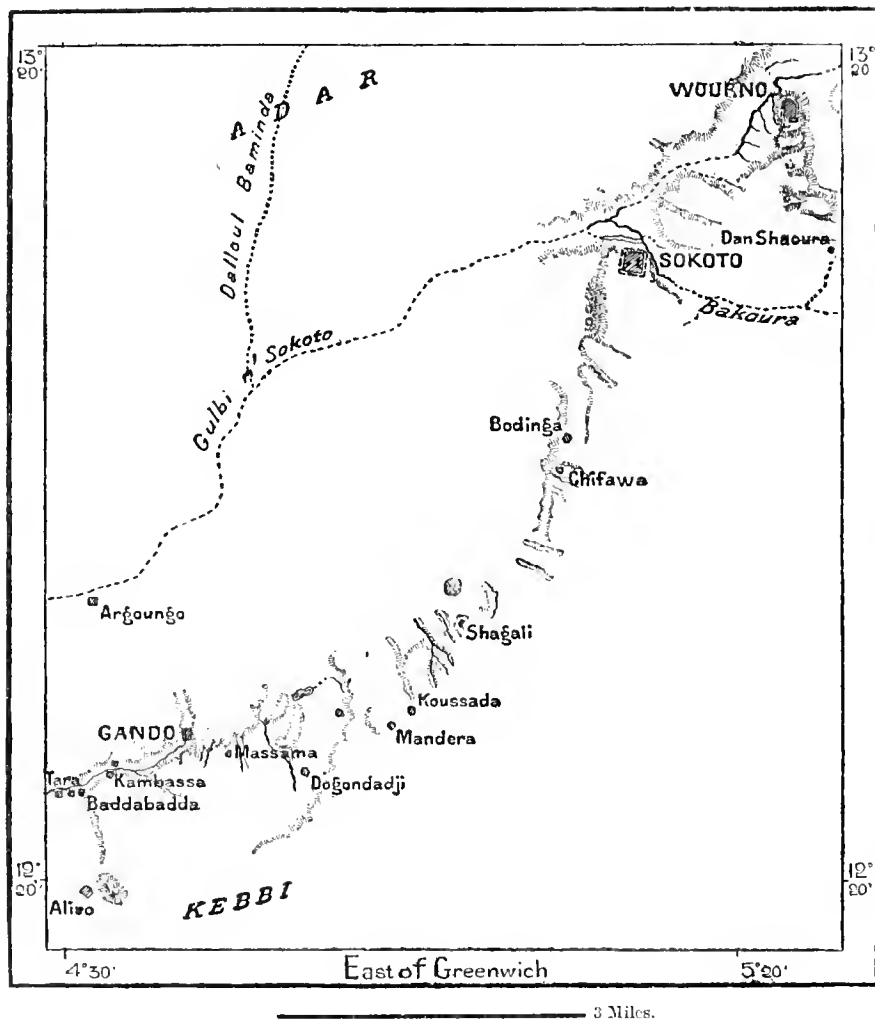
the Mossi territory; but it recognised the supremacy of Sokoto, capital of the

eastern empire. It occupies a singular position in a cavity encircled on all sides by escarpments, and watered by a small affluent of the Sokoto. This depression is surprisingly fertile, yielding an abundance of exquisite fruits and vegetables. The bananas and onions of Gando are famous throughout Haussa Land.

*Birni n' Kebbi* ("Fort Kebbi"), standing 30 miles west of Gando, on a terrace 280 feet above the broad and fertile Sokoto valley, occupied an admirable strate-

Fig. 151.—GANDO AND SOKOTO.

Scale 1 : 1,000,000.



gical and commercial position near the head of the navigation, and at the terminus of the shortest route to Sai on the Niger. But this former capital of Kebbi was destroyed in 1806 by the Fulahs, and has since been replaced by a new town called simply *Kebbi*, built in the neighbourhood, and in a district exposed to the incessant feuds of the surrounding Haussa, Fulah, and Songhai populations.

*Jegu*, on the Gulbi n' Gindi, a sub-affluent of the Niger, appears to be at

present the largest and most commercial place in this region. *Gomba*, on the right bank of the Niger, at the Sokoto confluence, is a mere village, and *Yauri*, lower down on the left bank, has been ruined by the Fulahs. It was formerly capital of the flourishing kingdom of Yauri, and was at that time a city of "prodigious extent," as populous as any other on the continent, with an enclosure from 20 to 30 miles in circumference. The great commercial city of *Kulfo* has also been razed to the ground by the Fulahs. Some years ago the king of *Nakwamach*, the state bordering Yauri on the east, made a slave-hunting expedition in the Niger valley, during which he destroyed fourteen cities, including the powerful *Ubaka*, of which the walls alone now remain. This razzia secured for the conqueror thousands of captives, but the destruction of life was enormous; whole districts remained uninhabited, and fugitives from Yauri fled for refuge to all the surrounding lands. *Kontokora* (*Kōntagora*), capital of the Nakwamach or Bamashi Negroes, was visited by Joseph Thomson, who found it a large city lying in a delightful hilly country, 60 miles east of the Niger.

In one of the rocky islets, 60 miles above Bussa, stands the town of *Ikuu*, a famous market which in peaceful times attracts traders from all the surrounding lands. *Bussa* (*Bussan*), near the rapids which proved fatal to Mungo Park, lies within half a mile of the right bank, some miles north of the ruins of another town bearing the same name. At the time of Flegel's visit in 1881, Bussa was the capital of a petty state, completely independent of the Fulahs; fifty years previously, the brothers Lander had spoken of the king as the most respected sovereign in West Africa, not so much for his power or opulence as for his ancient pedigree, for he was "the first monarch of West Africa at the beginning of the world." At present Bussa forms an advanced British station on the Niger, the French, who had occupied the place in defiance of all rights and treaties, having withdrawn under the stipulation of the treaty of June, 1898.

West of the petty states of Bussa and Woh-Woh stretches the Borghu country, comprising several distinct kingdoms, of which *Niki* is the most powerful. Although the king had accepted the British protectorate in 1894, the French occupied Niki in 1897, and this place was ceded to them by the treaty of June, 1898.

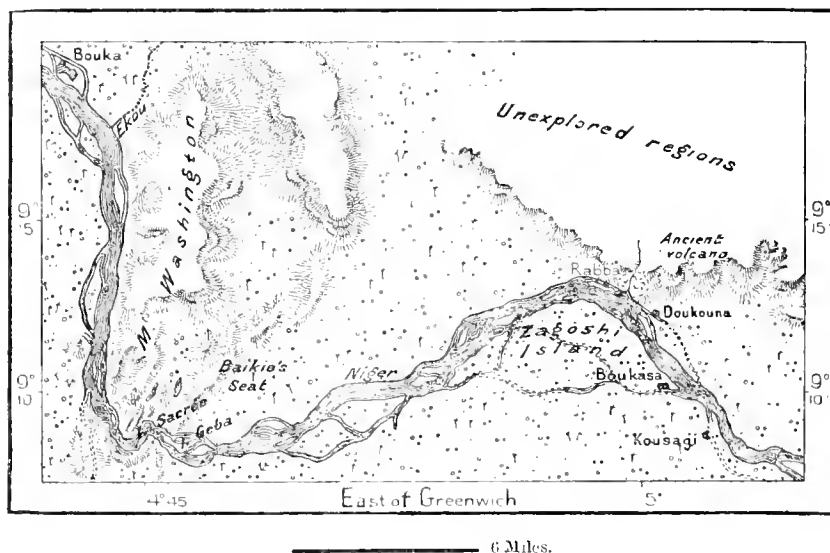
In 1845 Duncan visited *Adafudua*, in a fertile undulating district draining to the Niger, and dotted over with numerous towns inhabited by courteous, hospitable Mohammedan negroes. This traveller mentions *Assafuda*, *Kwampanissa*, *Kassokayo*, *Sabakano*, *Kallakundi*, and *Adafudua* following from south-east to north-west on the northern slope of the Mahi water-parting, all with six thousand to ten thousand inhabitants, and even more. He mentions incidentally on hearsay that the natives, probably akin to the Mossi, have succeeded in tanning the elephant; but in any case they raise a fine breed of horses, the playmates of the children from their infancy.

Over 60 miles below the Bussa rapids stands *Gigibé*, already within the Nupe territory, which, thanks to its position on both sides of the river where it approaches nearest to the coast of Lagos, occupies one of the vital points for the

trade of Central Africa. Nupé has the further advantage of an almost uniformly fertile soil, yielding in abundance all the fruits of the tropics. It might support millions of inhabitants, and at various epochs the population has been relatively very dense. *Rabba*, formerly one of the great cities of the continent, had one hundred thousand inhabitants at the beginning of the present century, when the slave-dealers had made it a depôt for their gangs of victims destined for sale on the seaboard. Opposite Rabba stood *Zagoshi*, peopled by boatmen and artisans, who, like all the riverain populations, obeyed the "king of the gloomy waters," a sovereign nearly always afloat on the stream. But both places were ruined by the suppression of the slave trade and the Fulah conquest. Rabba has partly recovered, thanks to its admirable position on a bend of the Niger at the southern extremity of a range of hills, skirted on the east by the little River Gingi.

Fig. 152.—RABBA.

Scale 1 : 400,000.



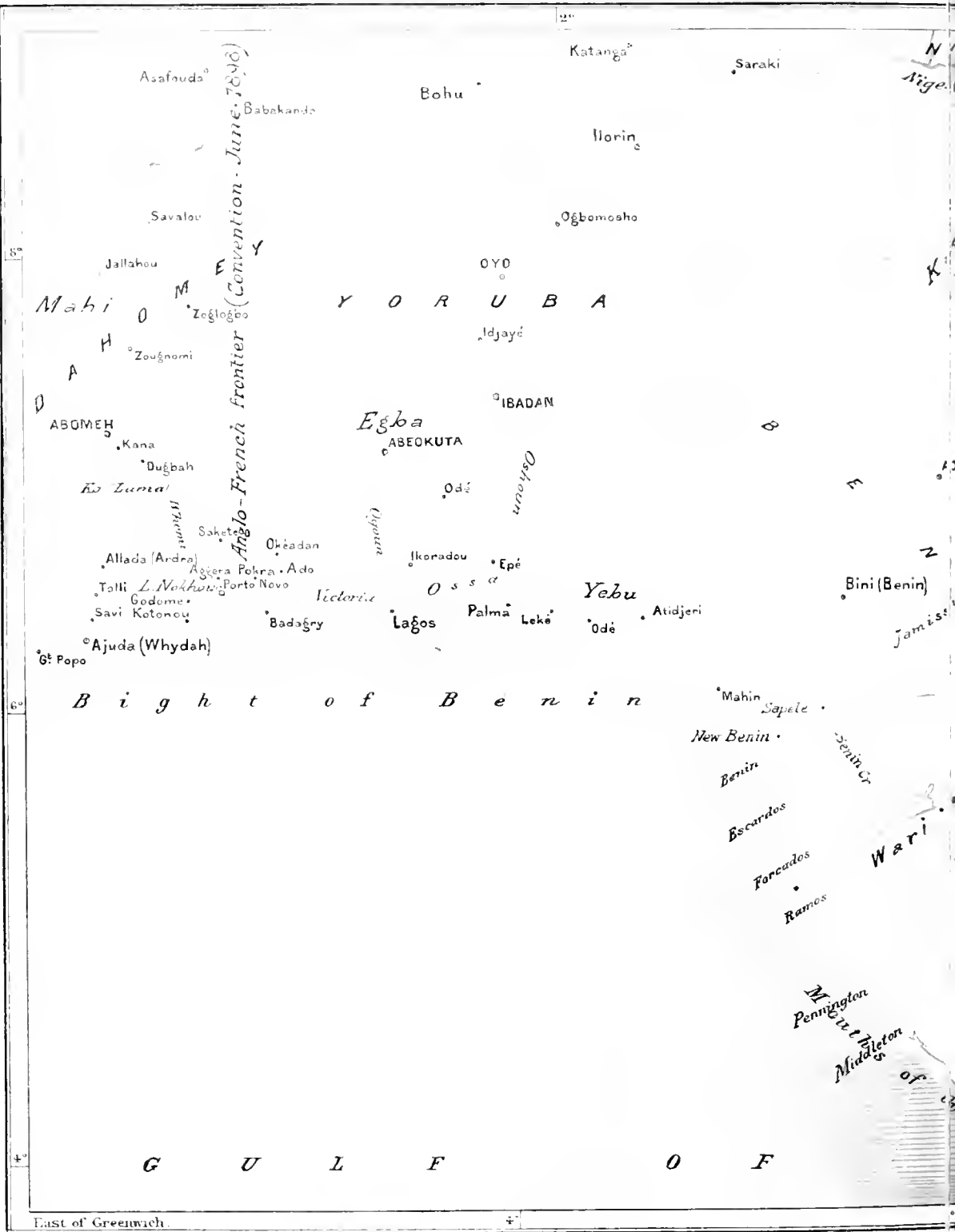
*Shonga-wharf*, 15 miles farther down, has been chosen by the English as the chief depôt for goods destined for Yoruba.

*Katanga* (*Katunga*), former capital of the great kingdom of Yoruba, stood some 24 miles from the bend of the Niger at *Geba*, and had itself succeeded *Bohu*, which was much more advantageously situated in a fertile valley. After their destruction by the Fulahs about 1820, both of these places became tributary to Bida and Sokoto, but now (1899) acknowledge the British supremacy. About 30 miles south of Rabba lies *Saraki*, a large place situated in a hilly but highly cultivated district, abounding in cotton, cereals, yams, and ground-nuts.

South-west of *Saraki*, the route across the Oshi affluent of the Niger leads to the great city of *Ilorin*, standing over 1,300 feet above sea-level, near the divide between the Niger basin and the streams flowing seawards. Owing to the trea-







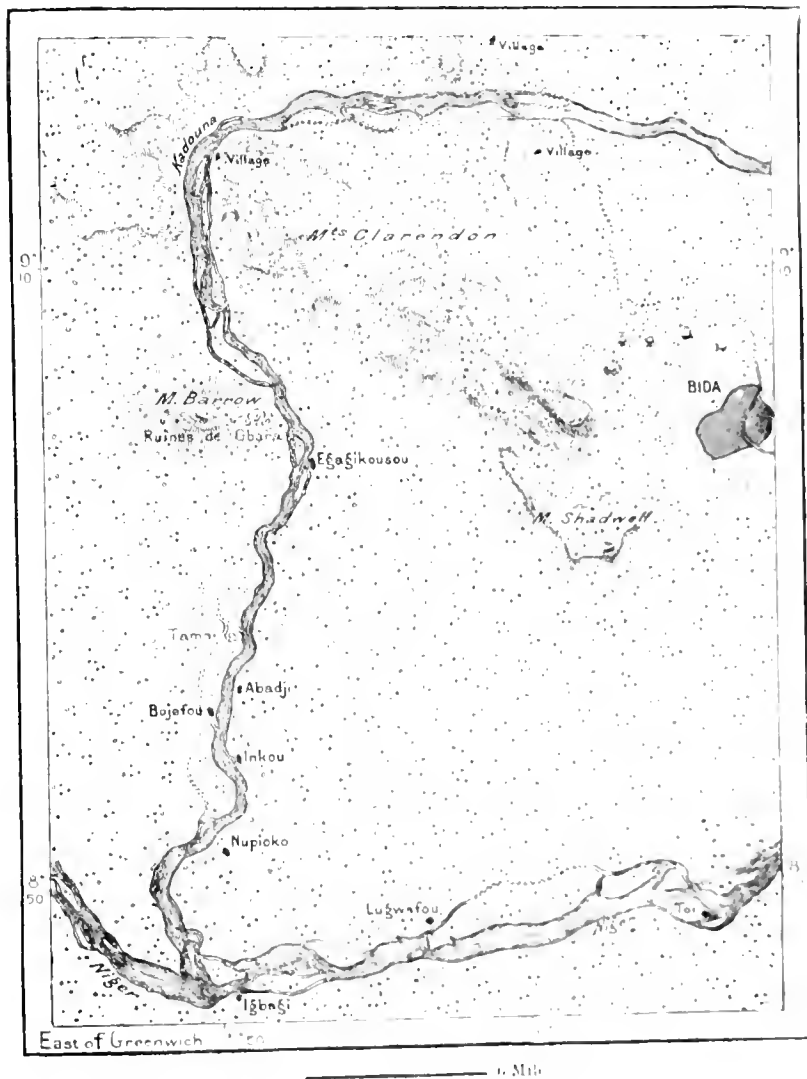
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chery of the inhabitants a punitive expedition under Major Arnold was despatched against this place in February, 1897, when it was captured after some hard fighting. The Emir and several other chiefs then submitted, and signed the treaty of Ilorin, accepting the paramount lordship of Great Britain. Ilorin is a very large place with shops well stocked with European wares ; population (1898) 90,000.

Fig. 153.—BIDA AND KADUNA.

Scale 1 : 450,000.



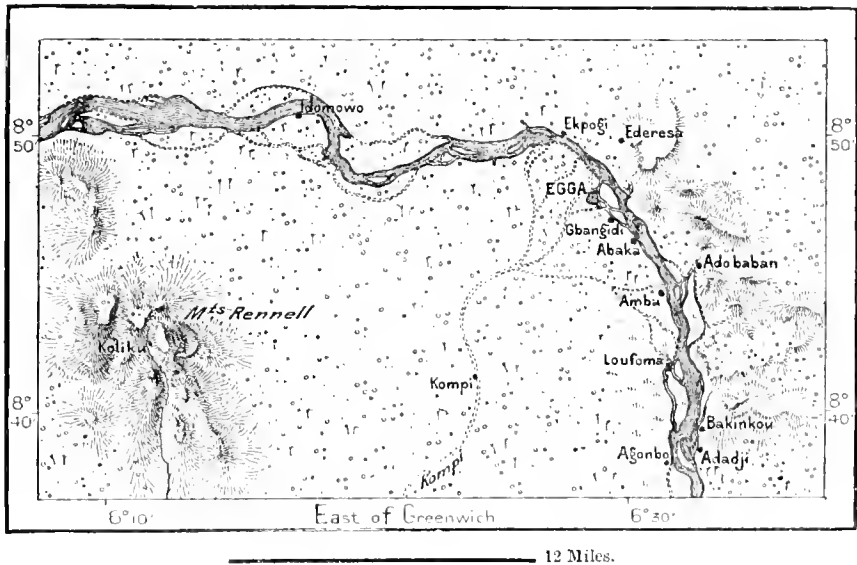
*Bida*, capital of Nupé, occupies the centre of the peninsular district limited southwards by the Niger, west and north by the Kaduna affluent, and watered by the Lauja, which flows through the Baku to the main stream. Shortly before the Ilorin campaign, Major Arnold led an expedition against the Fulah Lamr of Nupé, who persisted in oppressing his negro subjects, in violation of the treaties

of 1885 and 1890. Leaving Lokoja early in January, 1897, the British, supported by an armed flotilla on the Niger, successively occupied Sura, Egbon, and the southern Fulah capital, Ladi; and after routing the Fulah army, 20,000 strong, on January 27 triumphantly entered the city of Bida. These events were followed by the proclamation of the British protectorate, which was accepted by the new Emir of Nupé, on February 5, 1897. Bida is a great industrial centre, with a population (1898) of nearly 100,000.

The large river Káduna (Lavon, Lafun), which joins the Niger between Rabba and Bida, has its farthest headstreams in the provinces of Katsena and Kano, whence it flows through the province of Southern Haussa, known by the various names of Seg-Seg, Saria, and So-So (Zeg-Zeg, Zaria, Zo-Zo). *Saria (Zariya)*, capital of this territory, boasts of the finest mosque in Haussa Land. Lying on

Fig. 154.—EGGA.

Scale 1 : 500,000.



the divide between the Kaduna basin and the northern rivers, it probably stands over 3,000 feet above the sea in a well-watered, fertile, and extremely healthy district. The plains of *Egobbi*, south of Saria, appeared to Lander more especially worthy of being compared with the most charming sylvan landscapes in England. Egobbi itself, pleasantly situated on a northern affluent of the Kaduna, is regularly laid out, with open well-kept streets within a perfectly square rampart. Its calabashes are greatly prized for the delicacy of the carvings, chiefly of domestic animals, with which they are decorated. The dominating Fulah section of the community retains the national love of a pastoral life; by them husbandry is held in honour, but stock-breeding is a religion.

In the upper Kaduna basin there are no large towns, but numerous villages, peopled either by Mohammedan Fulahs, or pagan Negroes of the Kado nation.

Such are the markets of *Yā*, on a headstream of the Kaduna, and *Sango-Katab*, one day's march farther south, "the centre of five hundred small hamlets lying close together."

*Birni n' Gwari*, capital of the province of Gwari (Gbari), between Saria and Yauri, lies still within the Fulah empire, and maintains commercial relations with the Niger through Kontokora, and with Bida through the valley of the Marigo, chief western affluent of the Kaduna. In the Abuja country, east of Bida, which also belongs to the Fulah State, the principal trading-place is *Egga* (Eggon), on the right bank of the Niger, at the point where it trends southwards to join the Benue. Egga, which is a large place, unfortunately situated in a swampy, malarious district, already comes within the sphere of British trade, the town and territory forming part of the domain protected by the Royal Niger Company. Over 30 miles lower down and on the same side lies *Igbido* (*Buddu*), capital of the Kakanda (Effon, Shebi) nation, who are the agents for the transit trade between the Lower and Middle Niger. Some of them make long journeys into Haussa Land and even as far as Aïr, and occasionally maintain direct relations with the people of Ghadames.

#### ADMINISTRATION OF HAUSSA LAND.

The Fulah empire, founded by Othman at the beginning of the century, although now divided into the two kingdoms of Wurno (Sokoto) and Gando, still maintains a certain political unity, the suzerainty of Wurno being fully recognised by the western state. In other respects the whole territory consists of distinct kingdoms, each with its local organisation, and attached to the suzerain only by the annual tribute. In the hilly districts some tribes even still maintain their independence, while the frontiers of the vast domain constantly fluctuate with the vicissitudes of wars and revolts. Now also the sovereign power of the Fulah monarchs is notably diminished by the numerous commercial concessions made to the Royal Niger Company, and by the recognition of the British suzerainty in 1885. The revenue of the Haussa sultans must be considerable compared with that of other African potentates. In the middle of the century those of the single kingdom of Kano were already estimated by Barth at ninety million cowries, or £7,200, the annual impost being at that time five hundred cowries for every head of a family. The two kings of Sokoto and Gando might easily raise an army of a hundred and twenty thousand men, including thirty thousand cavalry.

The royal authority is limited by a ministry, the nomination and functions of which are regulated by custom. The ghaladima, or prime minister, always enjoys considerable power, and under him, in order of precedence, follow the chief of the cavalry, the commander of the infantry, the *cali*—who is at the same time the executioner—the heir to the throne, the chief of the slaves, and the minister of finance.

Most of the petty states are organised after the model of the kingdom of

Wurno. Imperial decrees are passed on from vassal to vassal to the extremities of the empire, and homage and tribute are in the same way sent up to the central Government.

#### THE BENUE AND LOWER NIGER.—BONNY AND OLD CALABAR.

The access afforded by the Lower Niger and Benue waterway towards the interior promises one day to become the most important of all commercial highways in the African continent. The mouths of the Niger open seawards near the head of the Gulf of Guinea, between the Bights of Benin and Biafra, that is to say, towards the natural converging point of the chief lines of navigation in the South African Atlantic. From this point the inland fluvial route already offers a continuous navigable highway accessible to steamers for over 900 miles unobstructed by a single difficult impediment. Of all the great African rivers, the Benue alone is free from rapids in its middle course; and even at the head of its navigation the slope of the land is continued eastwards through the Shari basin, while all reports agree in anticipating the existence of easy routes through the Niam-Niam territory from the Tsad to the Nile basin. Thus the Nile and Niger are connected by a great transverse artery crossing some of the most populous and productive regions in Central Africa.

Yet after the first appearance of the Portuguese on the Slave Coast three centuries passed before any European traders attempted to obtain a footing on the banks of the Niger or the Benue. Baikie's memorable expedition of 1854 ushered in the new era, which brings the purely African civilisation of Nigritia into direct contact with that of the whole world. Some English commercial houses sent their agents to the riverain cities along the Lower Niger, and at present the stream of commerce flows regularly from the whole of this region towards London and Liverpool. The English merchants have become the true sovereigns of the populations dwelling in this African Mesopotamia.

Nevertheless they had for a time to contend with the rivalry of some French houses, which began to found factories in the Niger delta about the year 1880. But the various British companies soon merged in a single powerful association, disposing of twenty-five steamers and a capital large enough to buy up all the French houses, and, despite the diplomatic clauses declaring the Lower Niger open to all nations, the commercial monopoly was thus restored to Great Britain. A German society, admirably served by the explorations of Flegel, has also recently made great efforts to secure the trade of the Benue; but the riverain chiefs, dazzled by the more brilliant offers of the English, have yielded to them all commercial privileges. "Wherever a British consul shall set his foot," wrote the emir of Nupé, "there also I shall set mine."

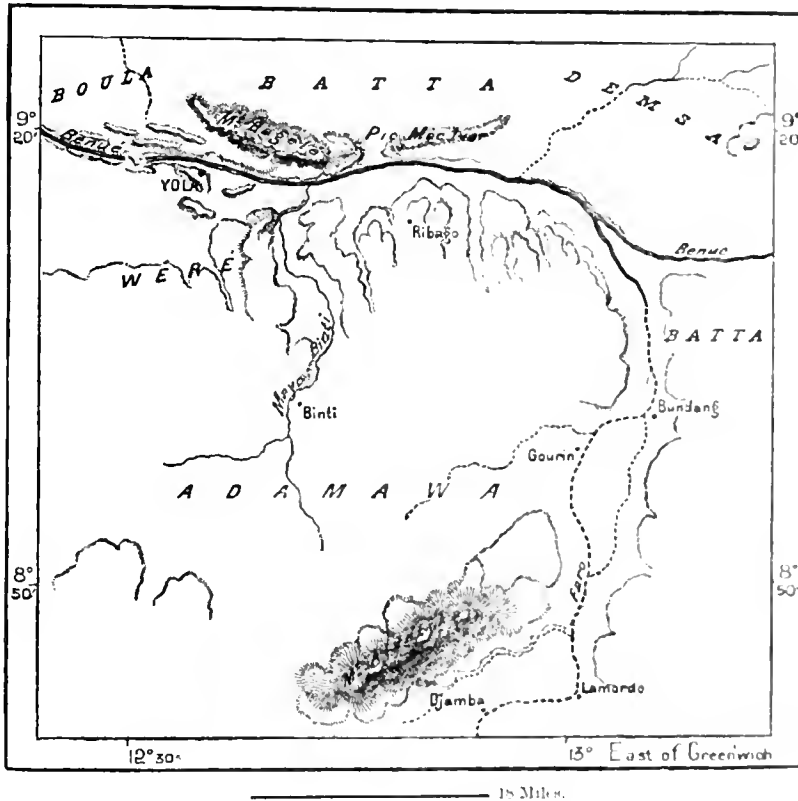
The position of the English representatives, supported by over two hundred treaties, is no longer challenged, and the support of the home government is gradually transforming their prerogatives into a political dominion. Not only can the company trade along the river to the exclusion of all others, but it has



also the right of buying or "otherwise acquiring mines, quarries, forests, fisheries, and manufactures, of cultivating the land and erecting structures on it. The company is moreover the political ruler of "all the territories ceded to it by the kings, the chiefs, and peoples in the Niger basin," and in return undertakes to treat with justice "the nations in its territories," to respect their religions, their laws, and properties. Nevertheless the company is bound to treat with the natives for the gradual abolition of slavery, on this condition obtaining a royal charter which places it under the control of the Secretary of State. Thus has

Fig. 155.—THE UPPER BENUE.

S. G. F. - 500 (1/100,000).



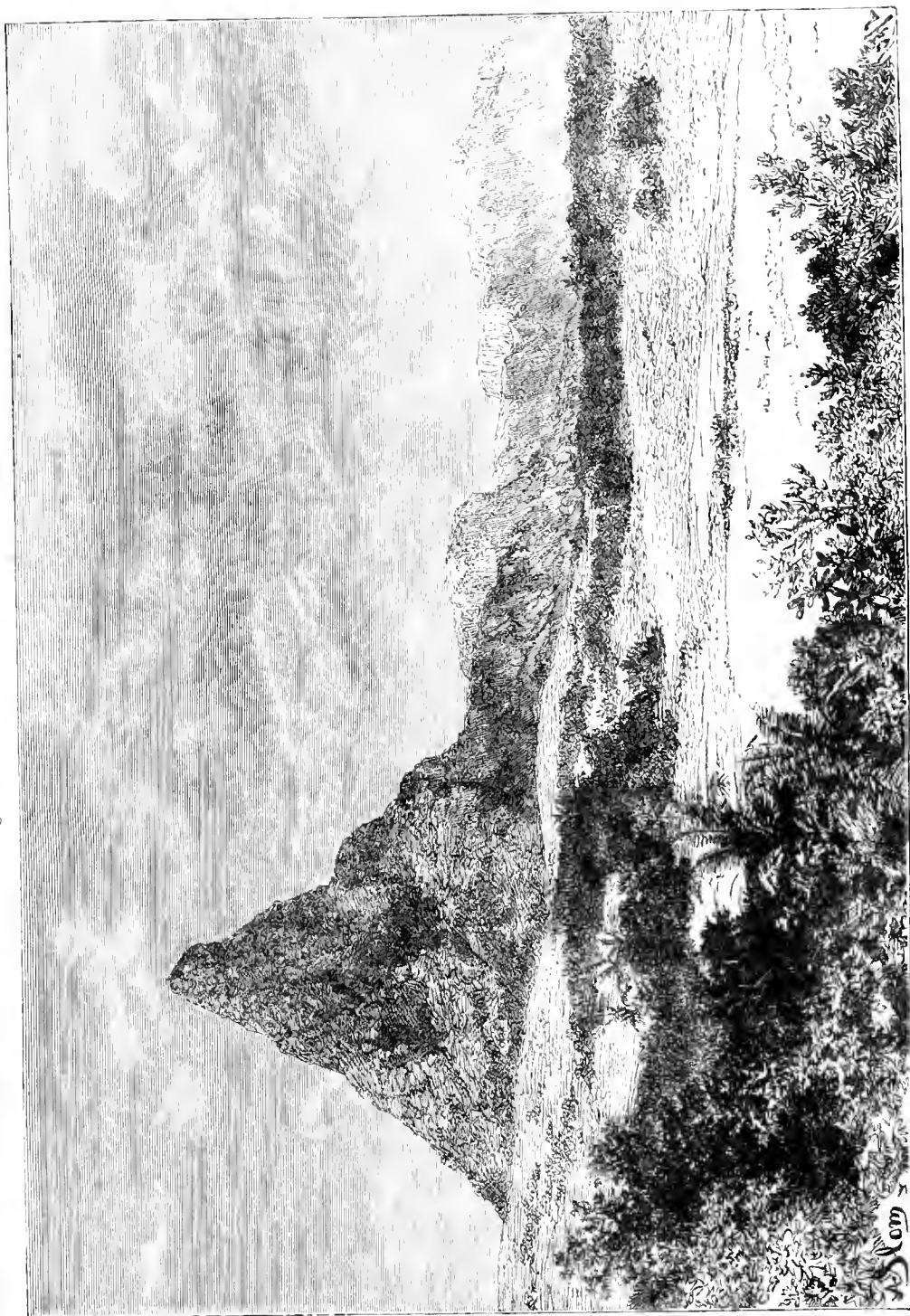
been constituted a second East India Company, which was founded under the name of "The National African Company," in 1882, and received its first charter as "The Royal Niger Company," on July 10, 1886.

#### PHYSICAL FEATURES.

Towards its source the Benue basin is separated from that of the Tsad by a scarcely perceptible water-parting; but towards the north the divide between its affluents and the Kaduna river is formed by plateaux dominated by some of the loftiest mountains in North Africa. These highlands are separated by intervening

valleys into distinct groups, disposed for the most part in the direction from north-

Fig. 156.—MAC-IVER PEAK.



west to south-east. The Gabi, the most copious stream rising in this region, flows

through a transverse valley lying north of the highest part of the uplands, beyond which, under the name of the Gongola, it pierces the divide at its narrowest and lowest part, ultimately joining the Upper Benue below Yola.

In the Kalam country and on the Bornu frontier, the surface is diversified only by low rounded heights rising above the sea of verdure; but in the Bauchi district, source of the great river Kaddera flowing to the Middle Benue, the hills again rise and merge in a magnificent Alpine system. Domes, needles, or quadrangular blocks with vertical walls, red, grey, or blackish granite crags, assume stupendous forms, towering 4,000 to 5,000 feet above the gorges, their slopes clothed with impenetrable primeval forests. Mount Saranda rises to a height of 7,000 feet immediately to the west of the great city of Yakoba, while farther west other granite chains run north and south, or north-west and south-east, crossed by the Gora Pass (4,500 feet), which leads down to the gently sloping plains about the head waters of the Kaduna.

Explorers have given English names to most of the mountains and hills skirting the right bank of the Benue. Thus a sharp cone above Yola, dominating all the surrounding heights, has been named Mac-Iyer Peak. On the same river occur Mount Forbes, the Murchison chain culminating in Mount Roderick (1,650 feet), and lower down the Ellesmere range along the southern section of its course. But the loftiest border range, running parallel with the Upper Benue for a space of 120 miles, has retained its native name of Muri. The scarcely less elevated hills on the opposite side are also still known by their African designations—Kwana, Morinu, Bak n' Dutchi. Below these the hills, rising in one of their peaks to an altitude of 4,650 feet, again take the English name of Albermarle Range, their peaks being provisionally named after Biot, Herschel, and other astronomers. The border chain near the Niger-Benue confluence is called the Oldfield Range, and all the hills encircling the confluence, with the single exception of the superb Mount Saraete, have similarly been named after British worthies.

#### FLORA AND FAUNA.

The upland valleys of the Saranda and neighbouring mountains have a climate like that of Southern Italy, suitable for the cultivation of all the plants of the south temperate zone. But towards the east stretches the domain of the dum and date-palms, and westwards that of the delcib, oil-palm, and cocoanut. In the western forests is found the *līnā* or *runā*, the fruit of which yields a kind of honey highly appreciated by the natives and even in Morocco, where it takes the name of *ia mulci dris*. In the Benue basin the most widely cultivated plant is cotton, whose fibre is remarkably firm, and so glossy that the woven material might readily be taken for silk.

In the Upper Benue basin there are said to exist two species of the elephant, one with a yellowish coat; and large herds of this animal are still met in the forests on both slopes. The upland woodlands afford cover to the rhinoceros and wild buffalo, and all the gorges are infested by the panther. The civet, though seldom

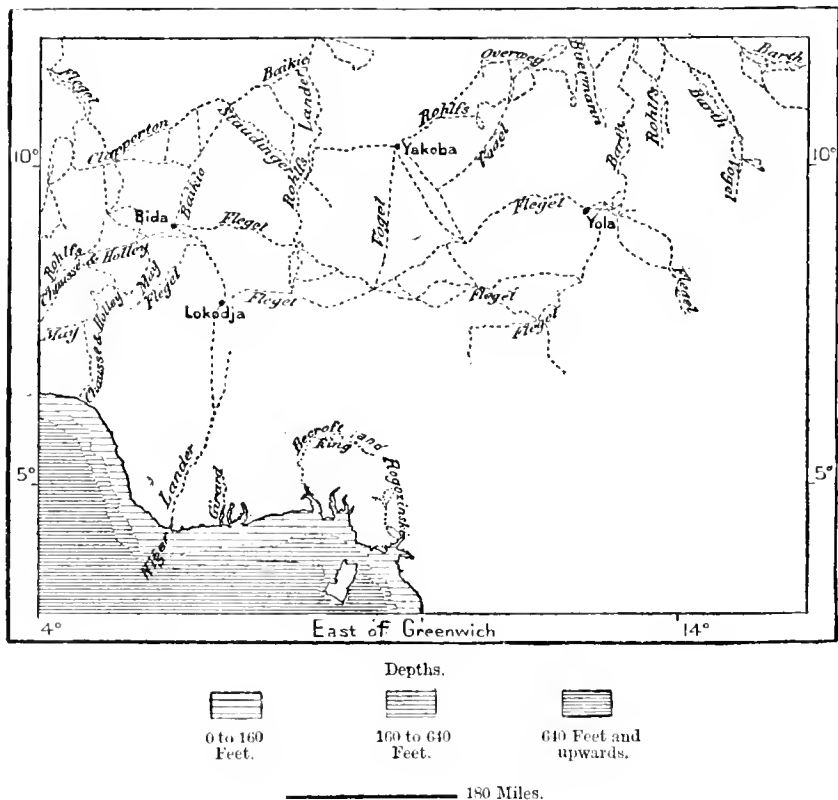
seen, is very common in the lands draining to the Benue; but, according to Rohlf's, there appear to be no large and very few small snakes, while all travellers remark on the almost total absence of spiders.

#### INHABITANTS.

In the Yakoba highlands the chief Negro people are the Bolos, who give their name to the province of Bolo-Bolo, better known by the designation of Bautehi. They are amongst the least favoured races in Sudan, short and thickset, with broad

Fig. 157.—CHIEF ROUTES OF EXPLORERS EAST OF THE BENUE.

Scale 1 : 13,500,000.



depressed nose and tumid lips, but generally of less dark complexion than their Fulah neighbours. North of the Muri Mountains dwell the pagan Wurukus and Tangakas, the latter the most dreaded of the Nyem-Nyem (Yem-Yem) tribes, who, like the Niam-Niams of the Welle basin, are confirmed cannibals, devouring their captives, but not their own sick and dead, as has been reported. In the popular belief the souls of all the departed are absorbed in one collective and highly venerated deity, called Dodo, to whom temples are erected in the shade of the baobabs.

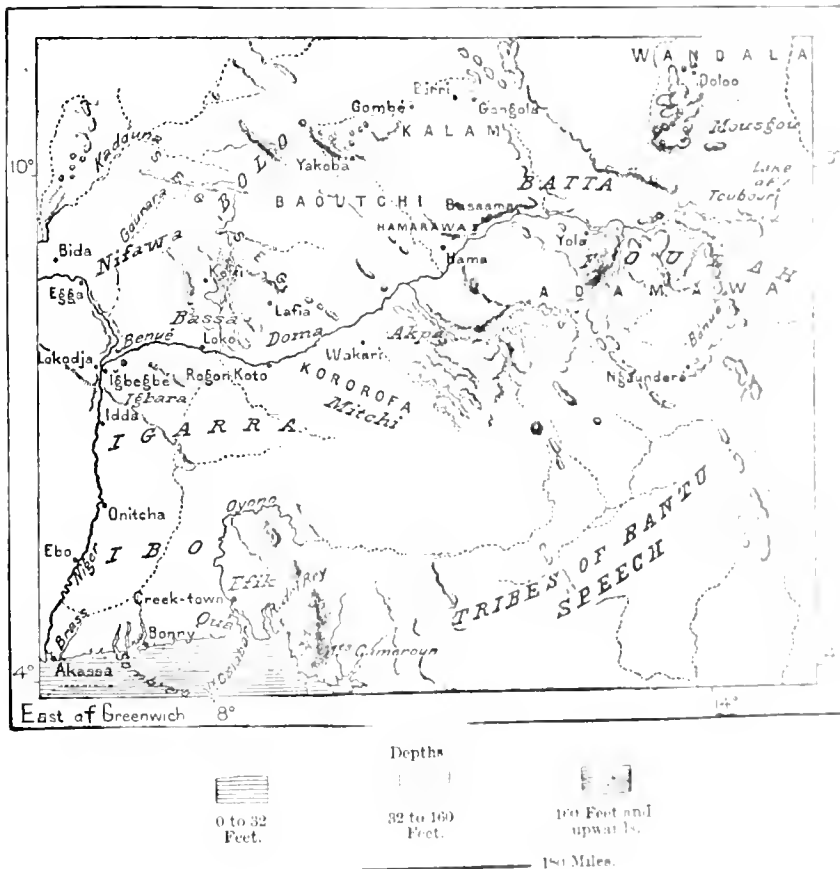
The Fali and Belé tribes in the Gongola basin, near Bornu, speak dialects akin

to the Kanuri, while the speech of those bordering on the Nifawa and Haussawa betrays certain affinities to the languages of those more polished nations. Although despised by the Mussulmans, these aborigines are often skilful artisans. The finest mats and best-baked pottery sold in the Lower Niger markets are prepared by the Afos and Bassas who dwell near the Benue confluence.

In the open plains the bulk of the population are Haussawa in the east and Nifawa (Nupé) in the west, while several towns towards the Bornu frontier are chiefly inhabited by Kanuri. The Fulah conquerors are everywhere numerically

Fig. 158.—RIVERAIN POPULATIONS OF THE BENUE AND LOWER NIGER.

Scale 1 : 10,000,000.



inferior, except in a few scattered enclaves where their herds find good pasturage. Many of these Fulahs, especially towards the Upper Benue, are still pagans at a very low state of culture. In Adamawa, on the left side of the Benue, they are more numerous than in the north, in some districts forming the majority of the population. Here most of the petty states are governed by Fulah chiefs, whose language prevails in the towns. The Sami, Bula, Bassama, Mbori, and other aborigines collectively known as Battas have been driven into the mountains or the forests, or else reduced to slavery. The magnificent lands of Adam

everywhere cultivated by slave labour, and Barth met several Fulah proprietors who possessed over a thousand slaves.

On the left bank of the Benue below Adamawa and Hainarawa, the predominant element are the Akpas, Wakari, or Juku, divided into numerous tribes, each speaking a distinct dialect of the same stock language. Some have been partly civilised by their Fulah neighbours, while others in the more remote districts are reported cannibals, wearing garments of foliage, and altogether leading very primitive lives. The Mishi or Mitchi occupy, on the south bank below the Akpas, an extensive territory stretching southwards to the Old Calabar basin. Facing them on the north side are numerous peoples speaking the Doma or Arago idiom, which appears to be related to the Yoruba.

The domain of the Igarra (Igallas), called also Apotos or Aputus, stretches along the left bank of the Lower Benue, and thence below the confluence to within a short distance of the Niger delta. But their territory has been encroached upon at several points by Bessas, Fulahs, or Haussawa from beyond the Benue. In the interior the Igarra speech extends probably to the neighbourhood of the Old Calabar river, and in any case this language, which has been carefully studied by the missionaries, is one of the most widely diffused in the Lower Niger regions. North and south of the confluence are some enclaves of Igbara and Kukuruku tribes, the latter so named from their cry, resembling the crowing of a cock.

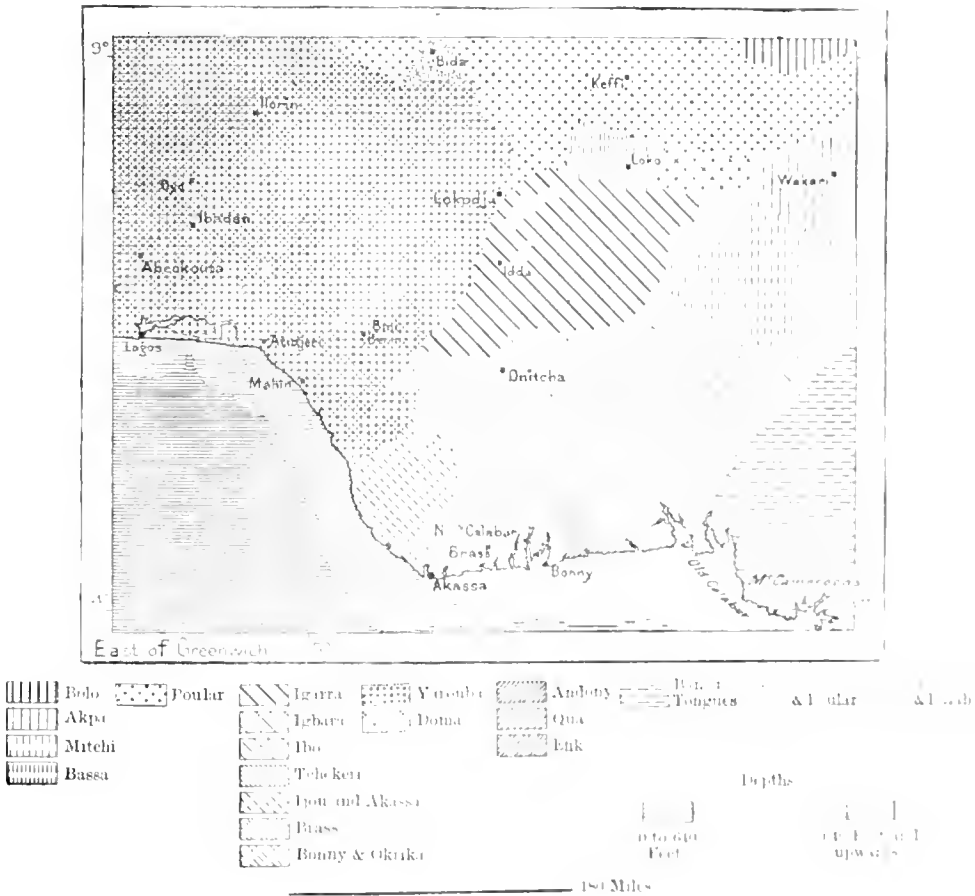
The domain of the Ibo speech is still more extensive than that of the Igarra, comprising west of the Niger a vast territory in the Yoruba country, besides all the head of the delta, and in the east the Old Calabar basin as far as the unexplored regions. Egba is divided into a great number of very distinct dialects, but the form current along the Niger has become the general standard, and has been adopted by the missionaries for their translations, grammars, and vocabularies. Formerly all the slaves transported from the Niger to America were indifferently called Ibo, of whatever speech or tribe they may have been. The Ibos worship *Tehuku*, a powerful god whom mortal eye has never seen, but whose voice may at times be heard; but woe to whoever hears this voice, for he shall henceforth be dumb. The deity dwells at once in a cavern and in the firmament, so that one eye pierces the depths of the earth, the other the heavenly spaces. Till recently his wrath was appeased by the sacrifice of hapless maids, who were dragged over the ground till they expired, and their bodies were then thrown to the fishes and crocodiles. Amongst the Ibos the social castes are strictly upheld, although anyone may pass upwards by right of purchase. The highest nobility comprises only a few members, whose greatness is proclaimed to the public by tinkling bells attached to their legs or borne in front of them. Others of lesser rank are announced from afar by horn-blowing; but all may be easily recognised by their special tattoo-markings. Some have the skin of the forehead brought down like a sort of visor over the eyes.

The delta region south of the dominating Ibos, is still occupied by scattered tribes without social or linguistic coherence, although the Izekiri (*Tchekeri*), or Benin language, prevails in the western districts towards the Yoruba frontier.

The Nun branch is occupied by tribes of Akassa speech, which like the Nempe of Brass, the Bonny Okrika, and others, belong to the Eyo (Iju) family. Commercial activity promises to give the preponderance to the Nempe, into which the native pastors translate the English religious works. Like the Ibos, the Eyo tribes believe in a supreme god, who, however, is confounded with the heavens, revealing his power in the clouds, the rainbow, the fierce gale, the lightning flash, and the thunder-clap. But this god is too remote to be directly worshipped, and

Fig. 159.—LANGUAGES OF THE BENUE AND LOWER NIGER.

Scale 1 : 750,000.



is therefore approached through the mediation of secondary and more friendly deities, such as the iguana in the Bonny estuary, the shark in New Calabar, and elsewhere monkeys. Every two years the towns are purified, not by clearing the houses or sweeping the streets, but by exercising the foul winds. The Jew-men, or wizards, play a preponderating part as medicine-men, priests, or prophets, as judges often condemning the accused to the ordeal of poisoning or plunge in some estuary infested by sharks and crocodiles. From them the Europeans learnt the potent properties of the *essence* of Calabar bean (*Pongamia*).

*renenosum*), which is now used in the treatment of ophthalmia. Formerly criminals were put to death in the Bonny district with every refinement of cruelty. They were attached, half torn asunder, to two gibbets set up on the beach and then chopped to pieces, beginning with the hands and fore-arms, and when nothing remained but the trunk, the heart was torn from the breast.

These Bonny men are the keenest traders on the coast, although closely pressed by their eastern neighbours, the Andoni, Quas, and Efiks of Old Calabar. These three tribes speak dialects of a radically distinct language, possibly related to others known only by name in the unexplored interior. The Efik, which alone has been seriously studied, seems to occupy an intermediate position between the Negro tongues in the north and west, and the great Bantu family, which begins in the Cameroon highlands, immediately east of the Rio del Rey.

Except a few missionaries, traders and officials in the employment of the Royal Niger Company, no Europeans are settled in this region, where the early attempts at acclimatisation proved disastrous. Of the forty-nine whites on board the first two steamers that ascended the Niger in 1832, nine only escaped with their lives; and on three other steamers sent by a philanthropic society in 1841, forty-eight out of a hundred and forty-three died during a short voyage of a few weeks. The "model farm" founded by them on the right bank above the confluence was not quite cleared for cultivation when the death of all the Europeans restored the land to wild beasts and the jungle. But then came Baikie's ever-memorable expedition in 1854, when by the judicious use of wine and quinine, and other sanitary precautions, a long voyage was made up the Benue without the loss of a single life. Henceforth Europeans had a decisive example of the proper measures to take, if not for complete acclimatisation, at least for temporary protection against the perils of this dangerous environment.

#### TOPOGRAPHY.

The Upper Benue basin lies almost entirely within the province of Adamawa, which is tributary to the Sultan of Wurno. According to native report, the most frequented market in this almost unknown region is *Ngaundere*, on the water-parting between the streams flowing to the Benue, Logon-Shari, Congo, and Old Calabar. Here are also the large towns of *Chamba*, on the south slope of Mount Alantika; *Kontcha*, where the sugar-cane grows wild, and *Yola*, near the south bank, present capital of Adamawa, or Fumbina, as it was called before the Fulah conquest. At that time the chief town was *Gurin*, on the left bank of the Faro, 24 miles above its confluence with the Benue. East of this confluence is *Rei-Buba*, whose strong ramparts show that the so-called "savage" aborigines had already developed a certain degree of culture before the arrival of the Fulahs.

North of the Faro mouth stretches the delightful land of Demsa with its pleasant villages scattered amid the thickets at the foot of the wooded granite hills. On the route from Demsa to Bornu, Barth passed the Arab town of *Belem*, then *Sarau*, inhabited partly by Fulahs, partly by *Berebere* or colonists from Bernu;



*Badamijo*, held by the Fali people, and near the divide *Uba*, the most advanced Fulah settlement in the direction of Lake Tsad.

The Gongola, which joins the Benue a little below Yola, waters the important provinces of Bautehi and Kalana, vassal states of the Fulah empire. Near the source lies the capital, *Garo n' Bautehi*, better known by the name of *Yakoba* (*Yakobari*), either from its founder or from the neighbouring Yako tribe. Like Yola, it is a modern place, built at the beginning of the present century by a

Fig. 160.—YOLA.

Scale 1 : 7,500,000.



converted Moslem chief, to whom the Fulah sultan had given in fief the vast territory lying between the province of Kano and the Benue. Yola stands over 3,000 feet above sea-level in the northern part of this region, surrounded by lofty mountains, whence streams flow in various directions towards the Gongola and other tributaries of the Benue. Thanks to its favourable position at the converging point of several caravan routes, and to other advantages, it increased rapidly, and at the time of Rohlf's visit was said to have already a population of one hundred and fifty thousand, mostly Haussawa.

North-east of Yakoba, near the right bank of the Gongora, lies *Gombé*, capital of

Fig. 161.—VIEW TAKEN IN DUMSA FORA.



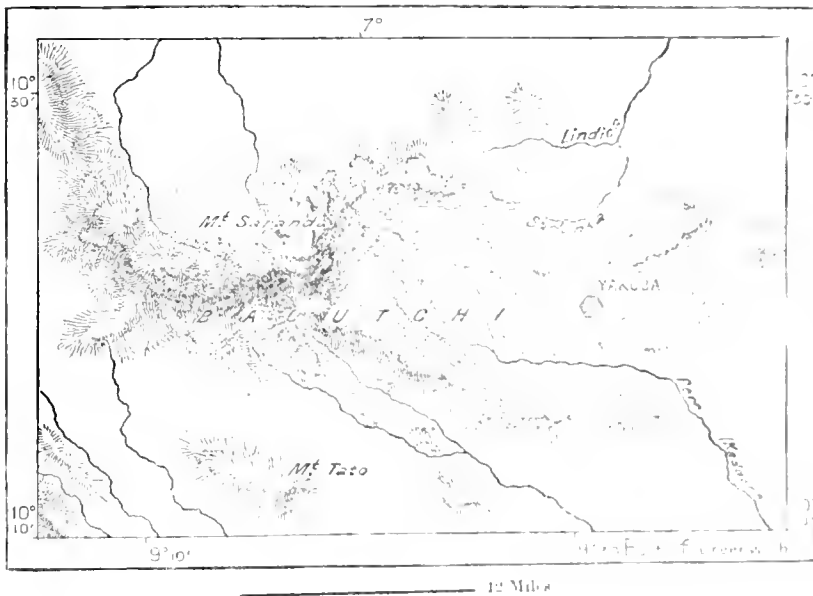
the kingdom of Kalam, also a large place, inhabited mostly by Kamuri people. " In

the same district are two other noteworthy places, *Bari-Bari* in the south-west, also inhabited by Kanuri, and *Duku* in the east, with a mixed population of Kanuri, Haussawa, and other elements.

On the north side of the main stream below the Gongola confluence stands *Muri* (*Hamarawa*), capital of the Muri vassal state, inhabited chiefly by zealous Fulah Mohammedans. On the opposite side of the Benue lies the city of *Ziara*, enclosed on the south by the Adamawa Mountains. *Wakara*, capital of the Kororofa state, which is separated from Bantehi by the main stream below the Kaddera junction, was visited for the first time by a European (D'Agob) in 1883. Like Muri, it lies some distance from the bank of the river, where the neighbouring ports of *Tchero*, *Shibu*, *Ibi* and *Anyashi* are now frequently visited by explorers

Fig. 162.—YAKOBA AND MOUNT SARANDA.

Scale 1 : 630,000.



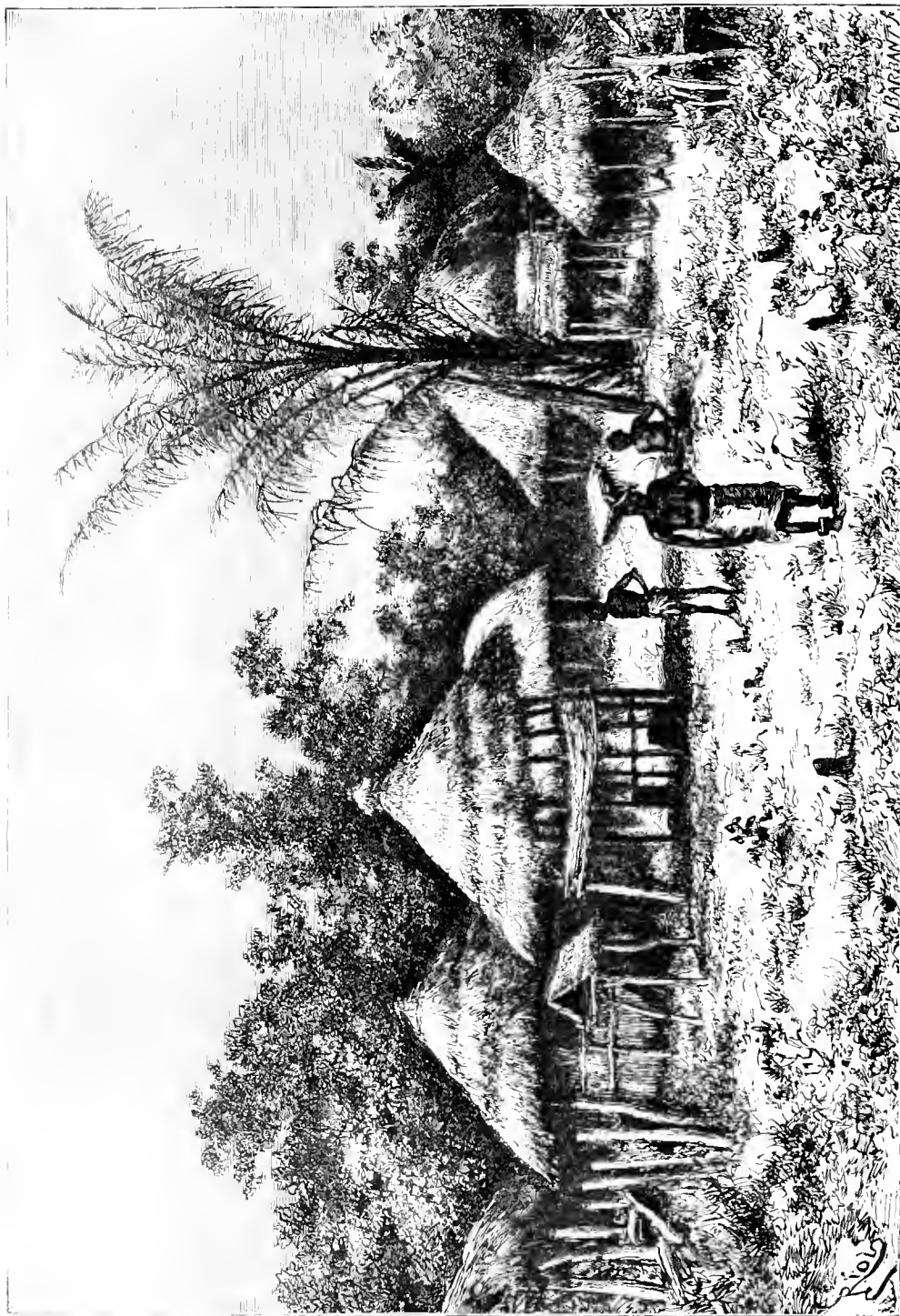
and traders. *Dansofa*, lying higher up on the same side, is noted for the mines of lead, wrongly said to be of antimony, which are situated two or three days' march in the interior.

In the basin of the Sungo, which joins the Benue near the southernmost point of the great bend, are some important places, such as *Lafia*, *Bere Bere*, a Kanuri settlement 60 miles north of the main stream; *A'lasha*, more to the west, and *Keana*, on the route between Lafia and the Benue, capital of a petty state leading to Wurno.

*Loko*, on the right bank of the main stream, 90 miles above the confluence, is the busiest place in the Benue basin. It is the largest city in West Africa, exporting annually from fifty to sixty tons of this commodity. Midway between Loko and the confluence the Benue is joined by the

(Kogua), from the Seg-Seg country, where lies the great city of *Keffi Abd-es-Senga*,

Fig. 163. — DWELLINGS IN NUR.



so named from its founder, who built it in 1819, and peopled it with Moslem



NIPP WOMAN.

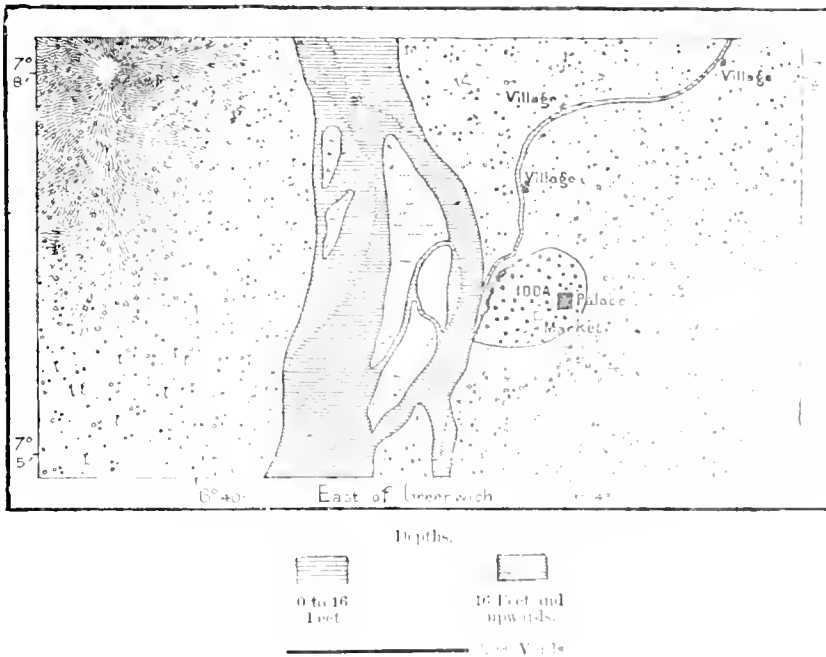


Fulahs and Haussawa. At the time of Rohlfs's visit it was a flourishing place, and the chief station on the trade route between Kano and the Lower Niger. Some 45 or 50 miles north-east of the Benue-Niger confluence, and within the present kingdom of Nupé, lie the ruins of the famous city of *Panda* (*Fenda*), formerly capital of the powerful kingdom of the Igbara nation, destroyed by the Fulahs towards the middle of the present century.

Since the commercial importance of the Benue has been recognised, the English have established a factory at the village of *Lokaja*, near the Niger confluence, and this place has now become an important trading, political, and religious centre. *Igbegbé*, on the left bank of the main stream below the junction, was formerly a chief stronghold of the slave-hunters, and is still a busy trading-place. *Idda*,

Fig. 164.—IDDA.

Scale 1: 110,000.



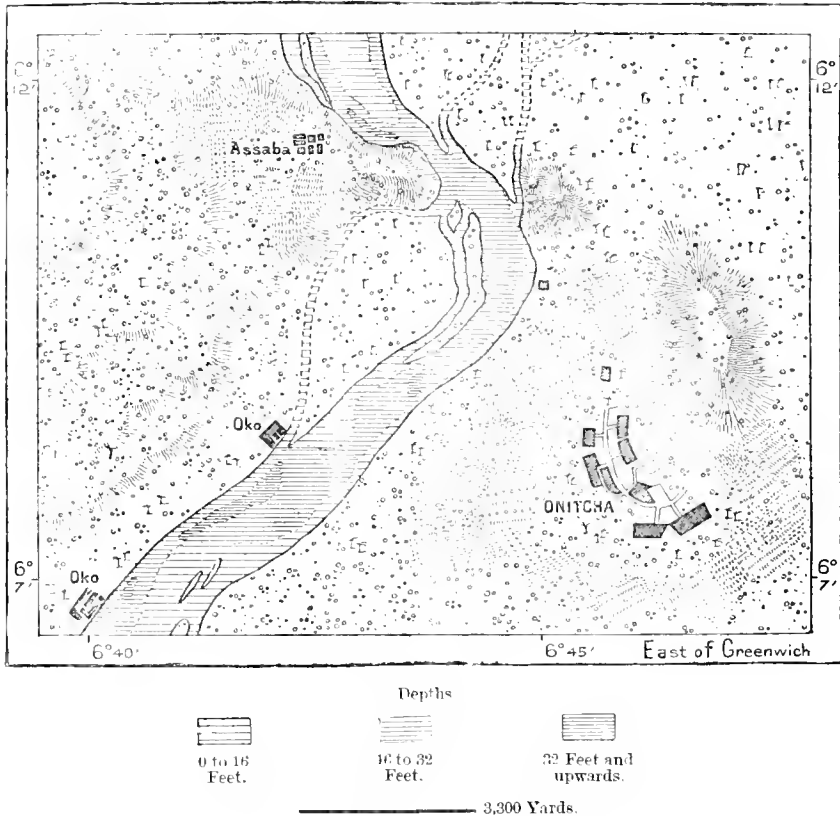
capital of the Ibo kingdom, occupies the most picturesque position in the Lower Niger basin, crowning a bluff some 60 feet high on the left bank, here everywhere skirted by rich and verdant plains.

*Onitcha*, a still larger place than Idda, lies about 2 miles from the left bank on a well-cultivated terrace rising 130 feet above the low-water level. On a bluff a little higher up on the opposite side stands the town of *Assaba* (*Assabua*), which is the present capital of Northern Nigeria, and here the English have also some factories. Owing to local disturbances the Assaba hinterland was the scene of military operations in January, 1899, when the towns of *Ibo* and *Ukara* were destroyed, and order restored by the forces of Captain Burdon of the Royal Niger Company. Thanks to its position, about half-way between the Niger-Benue confluence and

the mouth of the Nun, Onitcha has become one of the most important depôts along the course of the Niger, and has also the advantage of water communication with some very populous districts on both slopes of the river. Before the suppression of human sacrifices, the local "king" had to remain within the precincts of his palace, as custom required a human victim every time he went abroad. Once a year only, that is, during the yam feast, he was allowed out to take part in the public rejoicings. In the midst of the unexplored forests stretching eastward lies

Fig. 165.—ONITCHA.

Scale 1 : 135,000.



*Aro*, the mysterious "city of sins," where are made great sacrifices of animals, and formerly of men, for the cleansing of the people. A pilgrimage to this place, "where dwells the Creator," is held to be a meritorious act even by Mussulmans.

Along both banks follow several other towns and markets, such as *Osomari* and *Ndoni* on the left, *Ebo* and *Wari* on the right side, the latter capital of the kingdom of like name, and in an island near the bar the village of *Akassa*, which has become a chief centre of the commercial operations of the Royal Niger Company, and the port of entry of the Niger Territories.

#### BONNY AND CALABAR.

East of the Nun, the estuaries of the delta and of Old Calabar have received the name of *Oil-rivers* in a pre-eminent sense. Here the staple of the export trade



is palm-oil, the chief imports being rifles, munitions, textiles, kitchen utensils, hardware, implements of all sorts, mirrors, glassware, and coral.

*Brass*, the first important trading-place east of the Nun, lies some distance from the coast amid the network of channels connecting the Niger with the Bonny. Early in 1895 a native rising at this place, caused by the repressive

Fig. 166.—BONNY AND NEW CALABAR.

Scale 1 : 110,000



measures of the Niger Company, was followed by much bloodshed, and the plunder of Akassa, at that time capital of the Niger Territories. But the revolt was quelled, and Brass re-opened to trade by Admiral Balfour, in April, 1895. The double estuary of *Bonny* (Okoloma) was formerly connected with that of New Calabar by a common mouth now separated into two channels by an island of recent formation. It gives access to some great highways of trade traversing vast and populous but little-known regions in the interior. Bonny was the most

frequented station of the “slavers,” and as many as three hundred and twenty thousand captives were said to have been sold in the markets of this estuary during the first twenty years of the present century.

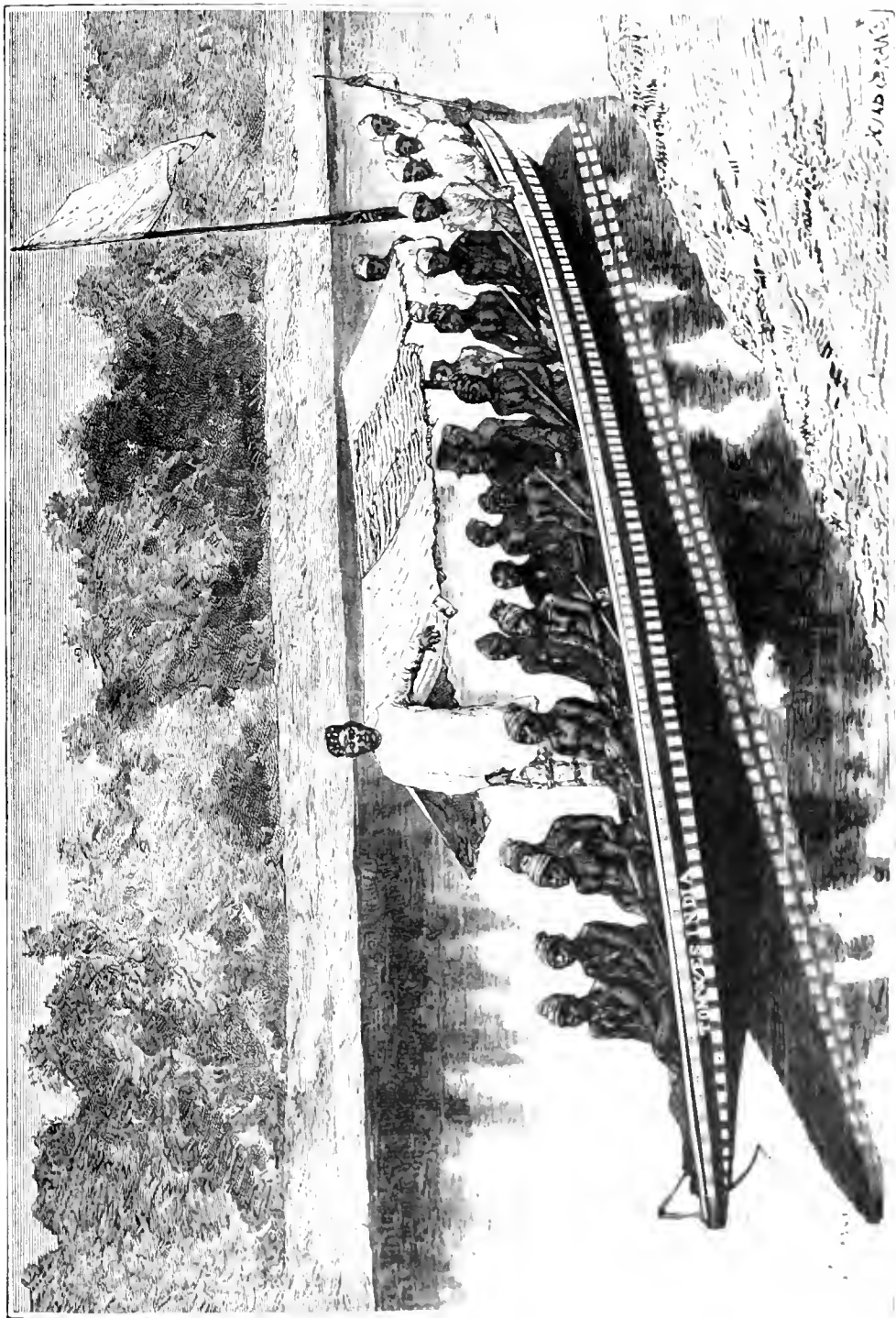
After its suppression in 1819 this traffic was gradually replaced by that of palm-oil, of which over twenty thousand tons have for some years past been exported

Fig. 167.—OLD CALABAR AND OYONO.

Scale 1 : 2,150,000.



from Bonny alone. Owing to the multitude of tribes and languages now represented in this district, English has become the almost indispensable medium of general intercourse. Near the extreme point of the coast below Bonny stands the port of *Finnema* (*Fammema*), by the English sailors generally called *Jew-Jew-town*,



FARGE ON THE NEW CALABAR RIVER.

W. ADAMS



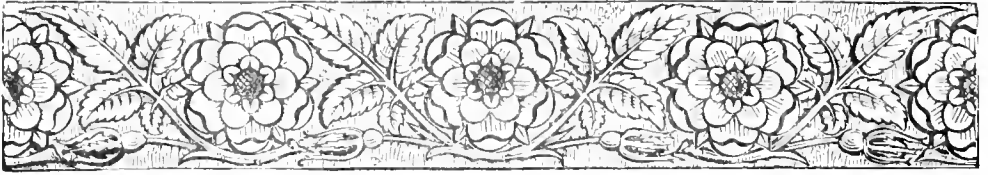
because here live the potent riverain magicians. The European traders do not reside on the coast, but in hulks grouped together to form a floating town. Elegant barges of European build ply between the hulks and the shore, and the estuaries are also animated by solidly constructed native craft embellished with original decorative designs.

Some 70 miles east of New Calabar lies the *Old Calabar*, or simply *Calabar*, estuary, 10 or 11 miles wide and everywhere studded with wooded islands. The various groups of houses known by the collective name of Calabar all stand to the north of this estuary, on the banks of the Cross River (Oyono) and its affluents. *Duke-town* (*Atakpa*), where the hulks are moored, lies towards the head of the inlet, near the junction of all the tributary streams. *Creek-town*, residence of the local "king," lies farther north, on the slope of the hills above the course of the stream; and the village of *Old-town*, the remains of a former prosperous station, lies midway on the channel leading from Duke-town to Creek-town.

Beyond the Cross River begins the German colony of the Cameroons, which was founded in 1884, and delimited towards the British Niger possessions by the Anglo-German Agreement of July, 1890. By this treaty the boundary line between the two spheres of influence runs from the Rio del Rey in a north-easterly direction to the south-western extremity of Lake Chad. It thus crosses the Upper Benue at Yola, but is here deflected in such a way as to leave that important station to British Sudan.

#### ADMINISTRATION.

Before 1899 this region comprised two main political divisions: THE NIGER TERRITORIES, including Central Sudan between Lake Chad and the Niger, administered by the Royal Niger Company from 1886 to 1899; and THE NIGER COAST PROTECTORATE, occupying the seaboard between Lagos and the Cameroons, administered by an Imperial Commissioner and Consul-General from 1891 to 1899. But in July, 1899, the Charter of the Royal Niger Company was revoked, and that body reduced to the status of a private trading association. At the same time all its territories were transferred to the Imperial Government, the Company accepting the sum of £865,000 in lieu of all claims. For administrative purposes the whole of British Sudan has now been divided into three sections, all under the control of the Colonial Office; and all thrown open to the free trade of the world, while slavery, or at least slave-raiding, is everywhere abolished. The three sections in question are officially designated: 1. THE GOVERNMENT OF LAGOS, practically comprising the whole of Yorubaland; 2. THE GOVERNMENT OF SOUTHERN NIGERIA, which includes the lower portion of the Niger Company's territories with the whole of the Niger Coast Protectorate; and 3. THE GOVERNMENT OF NORTHERN NIGERIA, that is, the region between the Niger and Lake Chad, bounded south by German and north by French territory. All local Customs barriers are swept away; the receipts of the general Customs duties are divided in equitable ratios between the three Governments, and the only limitations to free trade are the restrictions imposed on the sale of spirits and war materials.



## CHAPTER VIII.

### THE TSAD BASIN.

#### GENERAL SURVEY.



THE geographical centre of the African continent is not an Alpine range, as in Europe and Asia, but on the contrary a deep depression largely flooded by marsh waters, and in its relief inclining rather towards the Niger and the western regions. East and south this basin is encircled by mountains and uplands, north and west by disconnected hills and terraces, falling in the south-west to open, low-lying plains, through which the great lacustrine depression almost merges in the Benue hydrographic system. Thus the central region is almost everywhere easily accessible, and also contains a relatively dense population, estimated at certainly more than seven millions in a total area exceeding 280,000 square miles. Thanks to the fertility of the soil and its rich vegetation, the Tsad basin promises to become one of the most flourishing regions in the whole of Africa.

But this inland basin has not yet been brought into direct and regular communication with the civilised world. Years pass before the echo reaches Europe of the events of which it is the scene, and the great movements of migration, wars and conquests remain unknown. Hitherto its direct relations have mainly been through the Dar-For and Wadai routes with the east, whence it has received its Mohammedan religion, its foreign culture and knowledge of the outer world. The highway connecting the Tsad basin with the Mediterranean seaboard has been of far less historic importance, although in recent times more frequented by traders from the north, and consequently now better known. But this more direct route is, in its turn, being gradually replaced by the much longer but easier south-western waterway of the Benue and Lower Niger.

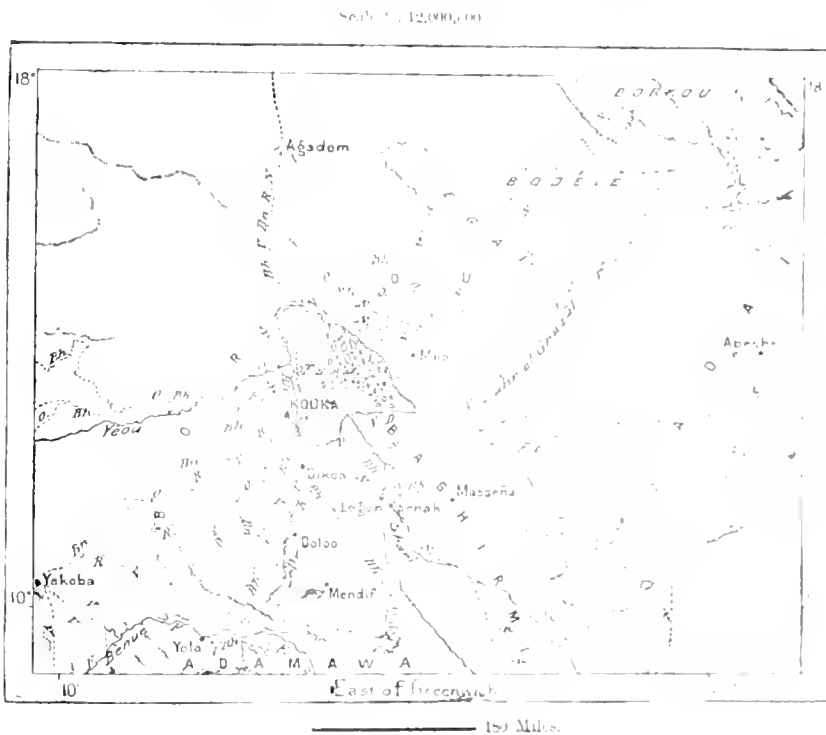
Since the partition of Africa the Tsad basin has been visited by many explorers, although the journey has proved fatal to several of those who have attempted it. Bornu was first reached in 1823 by the Fezzan route and Kavar oasis by Denham, Clapperton, Oudney, Hillman, and Toole; but two of these English pioneers never returned to their native land. Over a quarter of a century passed before the next expedition was undertaken in 1851 by Richardson, Overweg, and Barth, but

the two former soon perished, while their successor, Vogel, met with a violent end in Wadai, the same fate some years afterwards overtaking Beermann in Kanem.

In 1871 and 1872 better success attended Nachtigal, who, after visiting Borku and Kanem, successively traversed Bornu, Baghirmi, Wadai, and Dar-Fur. Matteucci and Massari followed in 1880, and in 1891 the Congo-Chad water-parting was for the first time crossed by M. J. Dybowski, sent by the French Government to the aid of M. Crampel, who had failed the previous year to make his way from the Congo to the Chad basin.

Eastwards the natural limit of the Tsad geographical system is formed by the

Fig. 168.—ROUTES OF EXPLORERS IN THE TEAD BASIN BEFORE 1890.



Marrah range, which in Dar-Fur constitutes the divide in the direction of the Nile. Farther west the plains are broken by some secondary chains, such as the two parallel Tirdzé ridges running north and south in Dar-Fur and Wada at an altitude of about 2,000 feet above the sea, falling imperceptibly northwards in the direction of the Sahara, and continued south-westwards by isolated eminences and by the Gheré hills occupying a large part of West Wada. West of the Sudd, some of whose affluents flow from the Gheré uplands, the divide between the Usru and Benue is formed by the Wandala Mountains, which have a mean elevation of 2,600 feet, culminating in Mount Magar, about 3,000 feet high. Near this range rise two isolated peaks, Kamallé, terminating in a conical mass, and much dissected

south the twin-crested Mendif, which at a distance seem white, but which are said to be really blackish, probably basaltic, the white appearance being due to a deposit of guano from the myriads of birds whirling round these heights.

Towards the west the incline is very slight from the plains of Bornu to the divide separating them from the oceanic basin. The absolute height of the hills does not exceed 2,000 feet, except in the isolated Mount Fika, visible in all directions for several days' march. In the extreme north the limits of the Tsad basin are indicated less by the relief than by the climate, although some chains of sand-hills, escarpments of the plateau, and a few rocky eminences vary the monotony of the steppe zone intermediate between the forest regions and the Saharan wastes.

#### LAKE TSAD.

Although the streams flowing westwards from the Marrah range belong to the Tsad system, it seems probable that none of them, except on rare occasions, actually reach the lake or its great tributary, the Shari. The Wady Azum and its various affluents form a permanent watercourse only during the kharif, or rainy season, and even then the slight general incline and the intervening eminences cause the sluggish current to expand in shallow meres, soon carried off by evaporation. The Batha, which rises in the Tirdzé hills, flows south-west and west to the Fitri depression, alternately a morass and a lake, according to the abundance of the rainfall.

In the language of the riverain populations who preceded the present Kanuri masters of the land, Tsad (Tsadé, Chad, Chadé), had the sense of "great body of water," and the term Kolo (Kula), applied to this vast flooded depression by the Yedina islanders, appears to have the same meaning. Burekhardt was the first to describe it with some approach to accuracy. All Arab traders, accepting the assumed identity of the Timbuktú, Bornu, and Egyptian waters, regarded Lake Tsad either as a common reservoir of all the African "Niles," or the inland sea of a great central plateau, whence the rivers escaped in all directions to the periphery of the continent. Since Denham, the first European who reached the lake, which he named "Waterloo," accurate surveys have shown that, on the contrary, it occupies one of the lowest regions in Africa, standing, according to Vogel and Nachtigal, not more than 850 or 900 feet above sea-level, while its hydrographic function is limited to collecting the surrounding waters in a completely landlocked basin. Its actual extent cannot yet be even approximately estimated, the sources and headwaters of its chief affluent, the Shari, being still unknown. Nachtigal's tentative calculation of 11,000 square miles for the lake alone is reduced by Rohlf's to 4,500 for the dry, and raised to 22,000 for the wet season.

But although thus rivalling in extent some of the other great lakes of the Old and New Worlds, Tsad cannot compare with them in the depth or volume of its waters. According to the natives the greatest depth between the shore near Kuka and the Shari mouth, is only "the height of two men," and the island of Seyorum, 12 miles off the coast, may be reached on horseback. In the deepest parts sur-



veyed by him, Overweg found only 20 feet, so that Tsad is rather a permanent

Fig. 169. — SHORES OF LAKE TSAD.



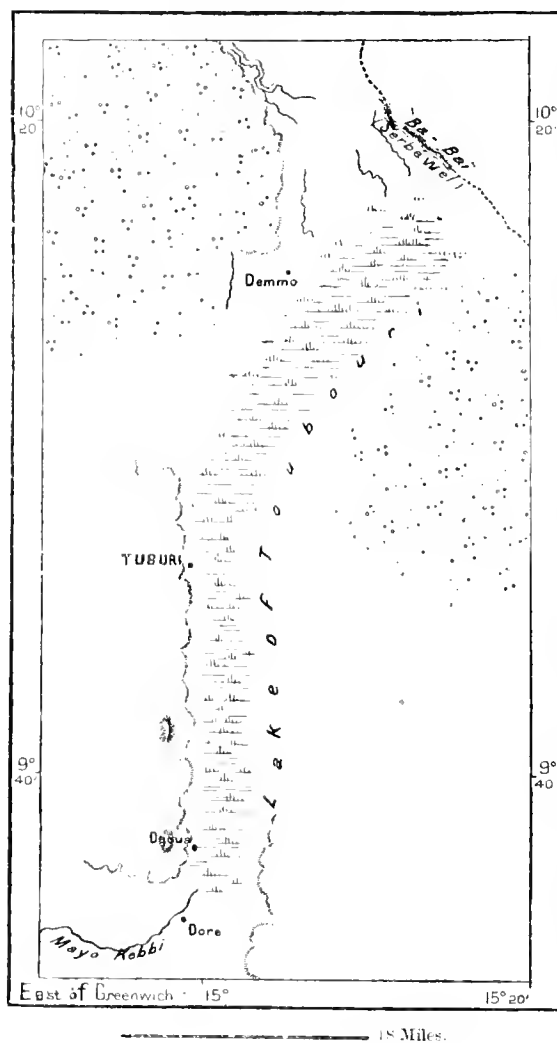
inundation than a lake in the true sense of the term, in the respect here meaning

the Siberian Balkash, apparently a great inland sea, in reality a shallow expansion of the River Ili.

The coastline is clearly defined only at the northern extremity, where the Saharian sands drifting before the trade winds have been heaped up in dunes, whose base projects like a headland into the water. Almost everywhere else it

Fig. 170.—LAKE OF TUBURI.

Scale 1 : 800,000.



seems impossible to say where the land ceases and the water begins. The south-east corner, and farther north the part near the Kanem coast, are occupied by groups of islands, covering, according to Nachtigal, one-third of the whole surface, and separated from each other by shallow or marshy straits. The southern archipelago of Karka is in fact a mere assemblage of eminences dotted over a morass, which if drained would present an appearance analogous to that of the neighbouring land of Kanem, where green hills and leafy thickets alternate with treeless spaces.

Besides the rains, which begin in June, Tsad is fed by large tributaries, chiefly from Bornu in the west, and from Baghirimi in the south. From Bornu come two *komodoğu* or "rivers," which in the dry season shrink to a mere chain of lagoons, but which during the rains flow in a continuous stream much too deep and rapid to be forded. The Yeu (Yobé of Nachtigal, Waubé of Barth), has its farthest sources in Haussa Land, 480 miles to the west, and it drains the whole

of West Bornu, and apparently also the Babir territory on the Adamawa frontier, which is said to send it a tributary flowing for part of its course through an underground gallery.

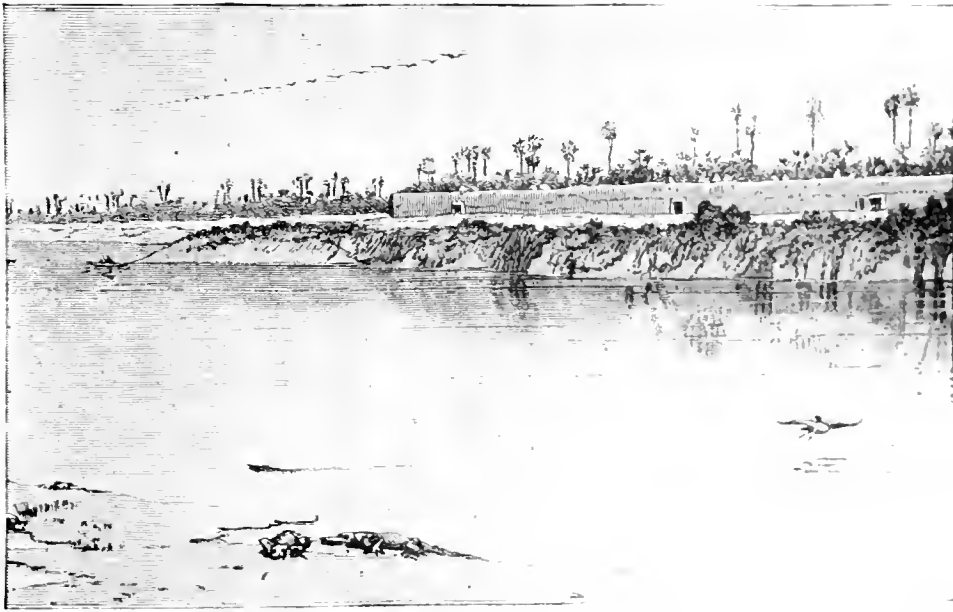
Much more important are the contributions received from the southern regions watered by the copious tropical rains. The streams, such as the Mbulu, rising in the Mandara country, flow sluggishly over the level plains, expanding into vast

sheets of water, and for weeks and months together interrupting all communications. Lake Tuburi is the centre of a series of lagoons presenting a continuous waterway between the Upper Benue and the Tsad, while during the rains all the branches of the Shari delta, on the south side, are merged in a common stream 30 miles wide. When this great body of water reaches the lake it begins to rise rapidly, attaining its highest level towards the end of November.

The Shari, which in the local idiom has the same meaning as Tsad, is one of the great rivers of Africa, the problem of whose source, however, is not yet completely solved. At the same time, the Welle of the Monbottu and Niam-Niam regions, supposed by Schweinfurth to be its upper course, is now known to flow through the Ubanghi to the Congo.

The farthest eastern headstreams of the Shari are probably over 600 miles from

Fig. 171.—THE BA BUSO, OR EASTERN SHARI, AT MISKIN, SOUTH-EAST OF LOGON.



the source of the Welle, taking their rise in the southern uplands of Dar-Fur and Wadai. According to the natives, the ramifications of its delta begin 300 miles above its mouth, at a point where it divides into two *ba* or chief branches, the Ba Bai, or Logon, flowing to the left, the Ba Busso, or Shari proper, to the right. But however this be, the eastern arm after receiving the Bahr-el Abiad ("White River"), from the Banda territory, throws off a branch, the Ba Betchikan, which is again united 150 miles lower down. Farther on both main branches are merged in one, while a number of secondary channels find their way in shifting beds to the lake.

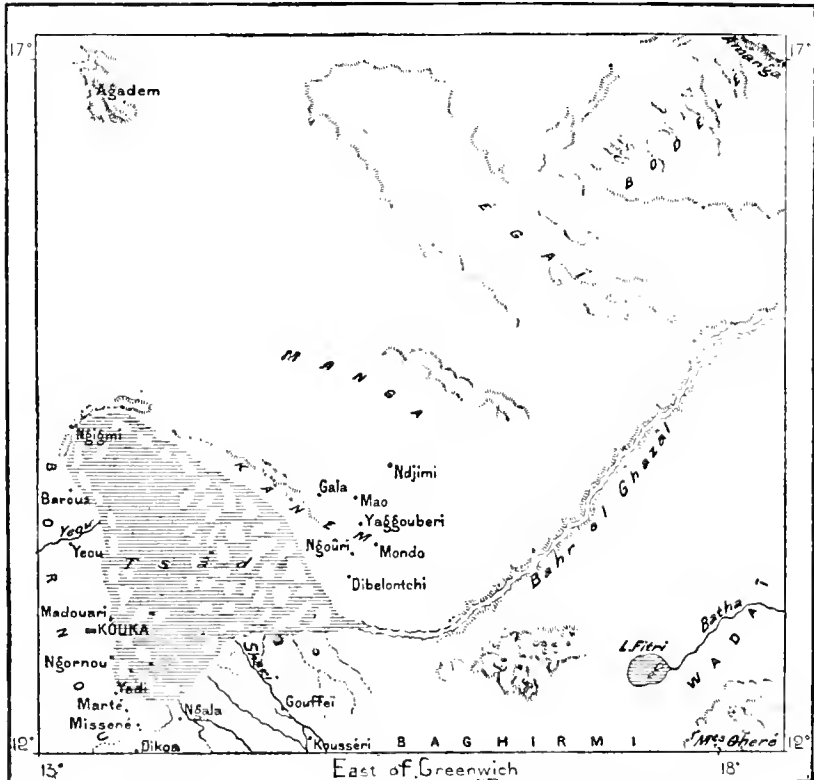
The annual discharge of the Shari is roughly estimated by Nachtigal at over 2,100 billion cubic feet, or an average of 70,000 per second, this quantity being at least double the supply received by the lake from all other influents and the

rainfall taken together. The total rise caused by all these contributions is estimated by Rohlf's at about 30 feet, the area of the flooded depression increasing during the inundations by many thousand square miles, and exceeding in extent the lake of Geneva ten or even twenty times.

Unlike all other large closed basins, Tsad is a freshwater lake, a phenomenon all the more surprising that wells sunk in Kanem yield a brackish fluid, while several islands in the eastern archipelago contain saltpetre. Doubtless its main influent, the Shari, flows through a region extremely poor in salt; but if the lake

Fig. 172.—TSAD AND BAHR-EL-GHAZAL.

Scale 1 : 6,000,000.



were of great geological age, the saline particles, however small in quantity, must necessarily have accumulated by the effect of concentration and evaporation, whence the inference that this reservoir is of comparatively recent formation. At present it is the scene of incessant change, due mainly to the action of the Shari, whose alluvial delta advancing on the south side causes the liquid domain to encroach on the other sides, and especially on the west coast, where the route between Bornu and Kanem is constantly receding farther and farther inland. Here the district of Kuka is exposed to frequent inundations, which laid the city under water in 1873, when the Sheikh proposed to remove his residence much

farther west. For the same reason several other towns, such as Ngigmi in the north-west corner, have had to be rebuilt farther inland.

While the water is thus advancing westwards, it is retiring on the opposite side, where the Bahr-el-Ghazal, although at a lower level than the Tsad, has been gradually drying up. This watercourse was long supposed to be a tributary of the lake, until Nachtigal's surveys confirmed the original statement of Denham and Clapperton, that it is really an old emissary, which is even still occasionally flooded. At the time of Nachtigal's visit, the current penetrated some 50 miles into the Bahr-el-Ghazal, which according to the local tradition, only ceased to be a regular affluent about the second half of the last century. Some infiltration probably still goes on below the surface, where brackish water can always be found at depths of from 4 to 6 or 7 feet.

According to Nachtigal's preliminary survey, the Bahr-el-Ghazal flows south-east, then north-east for about 200 miles to the Bodele depression, and thence to the Borku escarpments. West of this point occurs a series of low hills, such as that of Egay, also at a lower level than the Bahr-el-Ghazal, which separates the Bahr-el-Ghazal by a barrier of dunes. Here the sand-dunes, which spread out from north-east to south-west, generally move with considerable rapidity under the action of the regular trade-winds. Where the original lacustrine bed is not concealed by these sands, it is found strewn with the remains of fish in such numbers and so well preserved that a naturalist might here conveniently study the ichthyology of the Tsad basin. At present there are neither cultivated tracts nor permanent settlements in this region, where, however, Nachtigal discovered the remains of a city, and where the Senusiya missionaries have announced their intention of founding an establishment near the copious Galakka springs, on the route between Bodele and Borku.

#### CLIMATE.—FLORA.—FAUNA.

The climate of Bornu is much more equable than that of the Sahara, the difference of temperature being much less perceptible between day and night, and scarcely exceeding 17° F. between the hottest and coldest months. According to Denham the mean for the year at Kuka is 82°, falling to 75° in December, and rising to 91° in April. Throughout most of the year the trade winds prevail, flowing sometimes from the north-east, at others parallel with the equator. The rainfall increases generally in the direction from north to south, and from east to west, and is consequently much heavier in Bornu than in Wadai, in the Shari basin than in Kanem, and heaviest in the Mandara uplands, where the wet season lasts seven full months, and sometimes even more. In Bornu the corresponding period begins towards the end of May, and is over at the end of September, here the mean annual rainfall being certainly more than 40 inches. The remaining eight months are divided into a dry and a hot season, the former following, the latter preceding, the rains, and the transition between all these periods being everywhere very abrupt.

FIG. 173.—VIEW TAKEN ON THE BANKS OF THE SHARI.



In the intermediate zone between the Sahara and Sudan, the characteristic vegetation are graminaceous plants and trees not requiring much moisture, such as the acacias, the prevailing species of which traverse the whole continent from the Red Sea to the shores of the Atlantic. Here animal life is surprisingly rich, including vast herds of antelopes and gazelles, of giraffes and elephants, ostriches still as numerous as they ever were on the Algerian plateau, and the hippopotamus in the lake and all its affluents. Rapacious beasts, such as the lion and hyena, are also met in this region, while in the forests the weaver-bird hangs its nest on every pliant bough, and the shallow waters are animated by flocks of ducks, geese, pelicans, storks, and herons. Snakes are numerous, and after every shower the ground swarms with centipedes and other insects.

South of the border zone, vegetation increases in vigour and variety in the direction of the equator. The dum palm, rare and stunted in the steppe, acquires its full development in the interior of Bornu, and on the plains of Baghirni and the Mandara territory, here and there accompanied by the deleb palm, and everywhere associated with the leafy tamarind-tree, and in the south with the gigantic baobab. In South Baghirni the forest vegetation prevails everywhere, the trees increasing in size and presenting several new species peculiar to the tropics, such as the *Eriodendron anfractuosum*, yielding a down soft as that of the cider; the still more useful butter-tree (*bassia Parkii*), so valuable in a country where the domestic animals supply but little milk, and the *Parkia biglobosa*, whose berry affords an extremely nutritious flour.

In these forest regions the characteristic animals are the cynocephalous apes, lions, and other felidæ, elephants, the hippopotamus, and in South Waddi the *abu-korn*, or two-horned rhinoceros. Baghirni is described by Barth and Nachtigal as a land teeming beyond most others in insect life, scorpions, ants, and termites swarming everywhere, while certain districts are infested by the tsetse fly, or some analogous pest. Pyramidal termite-hills are frequently seen, resembling the native huts, but more solidly built, and for centuries resisting the action of the tropical sun and rains. Some were seen by Barth which stood 40 feet high with a circumference of about 70 yards. During the rainy season, when they assume wings, the termites hover heavily about their nests, and are then captured and devoured in vast quantities by the natives. They are found in endless variety, some almost microscopic, some nearly an inch long; some black, grey, or green, others brown, red, or white; some forming warlike aristocracies, others communistic republics, but all equally industrious and hardworking, whence the term *la-ti-ko* ("work-work") applied to them by the natives.

Lake Tsad appears to abound in fish, which form the staple food of the islanders, and which are largely exported to the interior of Bornu. The lacustrine fauna includes some much-dreaded carnivorous species, and the *sciaenopterus*, a dangerous electric fish, besides the *manatis Pagei*, a cetacean so named from the traveller who first described it.

In the Tsad basin the chief cereals are dokhn and darna, the former cultivated in the sandy districts of the north, the latter in the stronger soil of the south.

Crops are also raised of maize, rice, sesame, and ground-nuts, besides a little wheat and barley, which, like the fig, citron, and pomegranate, are of recent introduction. These trees grow to an enormous size, but the fruits are inferior in flavour to those of the Mediterranean regions.

Horned cattle, horses, asses, sheep, and goats thrive well, and despite the precepts of Islam, the people of Kuka keep herds of swine, which act as scavengers in concert with the carrion birds. In Bornu camels are rare, except in the north, where the Koyam people have succeeded in acclimatising a particular variety. Of oxen there are several breeds, of which one is distinguished by enormous horns growing in the form of a lyre 20 inches in circumference at the base; while another has a hump like that of the zebu, and short movable horns rocking at every step. The horses, introduced from the north during the period of the Mohammedan invasion, are of the Barbary stock, which they still equal in endurance, vivacity, and speed. All these domestic animals are carefully tended in well-kept stables, and protected against the "evil eye" by high enclosures furnished with amulets.

#### WADAI.

In the Tsad basin the political preponderance belongs at present to Wadai, or Borgu, which is, nevertheless, neither the richest nor the most populous state in this region. Wadai, properly so-called, is a country of small extent lying west of the low Tirdze range, scarcely one-tenth of the subdued territory, not even reckoning the vassal states of Kanem and Baghirimi. The sultan's dominions, which are scarcely anywhere clearly defined, are officially conterminous with Dar-For, from which, however, they are separated by no natural frontier, but rather by an intermediate neutral zone or borderland occupied by nomad populations. Towards the north and north-west the frontiers oscillate with the migrations of subject tribes moving from camping-ground to camping-ground; the western limits also are frequently modified by wars and marauding expeditions, while southwards the territories of the reduced tribes have no known confines. But the area of the empire with all its tributary states and dependencies may be roughly estimated at about 180,000 square miles, with a scanty population—according to Nachtigal, not exceeding two millions six hundred thousand.

Nearly all the attempts hitherto made to visit Wadai have ended in disaster. Curry and Beurnmann both perished, one approaching from the east, the other from the west. Vogel reached the capital in 1855, but only to be murdered by the fanatical Mussulman inhabitants; Nachtigal, however, who crossed the frontier in 1873, was more fortunate, by his prudent conduct overcoming prejudice and securing friends even amongst the most zealous Mohammedans. Matteucci and Massari also were at least able to traverse the country rapidly and under escort in 1879.

The Arab element is relatively much larger in Wadai than in any other part of Central or Western Sudan. The indigenous races have, nevertheless, maintained the preponderance, and the Negro Maba nation, comprising one-seventh of the



whole population, claim to be nobles amongst the nobles, founding their pretensions on their early conversion to Islam. Their speech is widely diffused amongst the surrounding tribes as the general medium of social and commercial intercourse.

South and south-east of the Mabas dwell the Abu-Sharibs, separated from the kindred Tamas, who occupy the uplands of the same name north-east of Wara, former capital of the kingdom. Like their Kadoi neighbours they are a valiant race, who long maintained their independence against the Mabas. Other powerful peoples are the recently subdued Massalits in the eastern borderland between Wadai and Dar-For, and the Kukas and Bulalas, founders of the Fitri state, who still enjoy a measure of independence, and whose sultan, although now tributary to Wadai, is considered of more noble origin than his suzerain chief. North of Wadai proper, the Zoghawas, as well as the kindred Dazas and Tedas, are represented by some zealous Mohammedan tribes.

Wadai is at present a chief centre of religious propaganda, the Maba sultan having become the ally of the Senusiya sect. Nevertheless, most of the subject tribes or vassals in the south have remained pagans, or are at most merely nominal Mohammedans. Thus the Kutis, akin to their Moslem neighbours the Rungas, still practise witchcraft, while other "Katir" populations inhabit the southern region vaguely known as Dar-Banda. Like the Niam-Niams still farther south, the Banda people are cannibals, and worship a goddess Wamba, to whom they offer beer and the first-fruits of the chase. This country, say the natives, is bounded southwards by the Bahr Kuta, a great river inhabited by crocodiles and hippopotamuses, and very probably identical with the Welle or some other great affluent of the Congo.

Of the Arabs, collectively known in Wadai by the name of Arauka, the most numerous tribe are the Mahamids, settled in the country for over five hundred years, and very rich in camels and other live stock. They pitch their tents especially in the northern valley, and on the steppes stretching away to Borku and Tibesti. The other Arabs of Wadai, more or less mixed with Nuba blood, are divided into the two groups of the Soruks, or "Blacks," and Hour, or "Reds." The Arab element is also largely represented among the Jellabas, or traders, whose caravans penetrate west to Sudan, south to Dar-Banda, and south-east to Baghirmi, taking slaves, ivory, ostrich feathers, and copper in exchange for salt and European wares.

#### TOPOGRAPHY AND ADMINISTRATION OF WADAI.

*Abeshr* (*Abeshéh*), present capital of Wadai, lies in the Maba country, near the caravan route leading from Kuka through Dar-For and Kordofan to Khartum. It is a modern town, founded in 1850 by a sovereign whose previous residence, Wara, was exposed to the attacks of the surrounding highland populations. Of Wara, situated 24 miles north of Abeshr, nothing remains except a brick mosque and minaret, and on the summit of a rock a sacred cabin, where, on his accession,

the sultan has to make a seven days' retreat. It was for rashly penetrating into this hallowed spot that Vogel seems to have been put to death.

*Nimro*, west of Wara, is the centre of the Jellaba traders, but not their chief depot. Of the other groups of population the largest is *Kodogus*, 120 miles south of Abeshir, in a district inhabited by Arabs and Abu-Sharibs. *Yawa*, on Lake Fitri, capital of the Bulalas, is said to be one of the oldest places in Sudan.

The Sultan of Wadai, a member of the Ghemir (Nuba) tribe, is the direct ruler only of the northern part of the kingdom. This territory is divided, like Dar-For, into provinces named from the cardinal points, and governed by kemakels, or lieutenants, with the right of life and death over their subjects on the condition of remitting to the sultan the customary tribute. This tribute varies according to usage and the local conditions, some places furnishing slaves, some horses or cattle, others honey or corn. In the administration of the country the Sultan is assisted by the *fasher*, or "privy council," while the laws—that is, the Koran and its commentaries—are interpreted by the *fakih* or *ulima*, although local usage still largely prevails. The army, of about seven thousand men, is chiefly employed in enforcing the payment of tribute in Baghirmi and the other vassal states.

#### KANEM.

Taken in its general acceptation, Kanem is the region, some 30,000 or 32,000 square miles in extent, which is bounded on the south-west by Lake Tsad, on the south-east by the Bahr-el-Ghazal depression, on the west by the great caravan route from Bornu to Tripoli, and on the north by the line of wells on the verge of the desert. But in a narrower sense Kanem, properly so called, is the triangular space whose base is formed by the shore of the lake, and apex by the two latitudinal and meridional lines running north and south-east from the two corners of the lacustrine basin. Within this region of woods and cultivated tracts are concentrated nearly all the inhabitants of Kanem, who are estimated at scarcely more than one hundred thousand. Northwards stretch the almost level Manga plains, forming an intermediate steppe zone towards the desert.

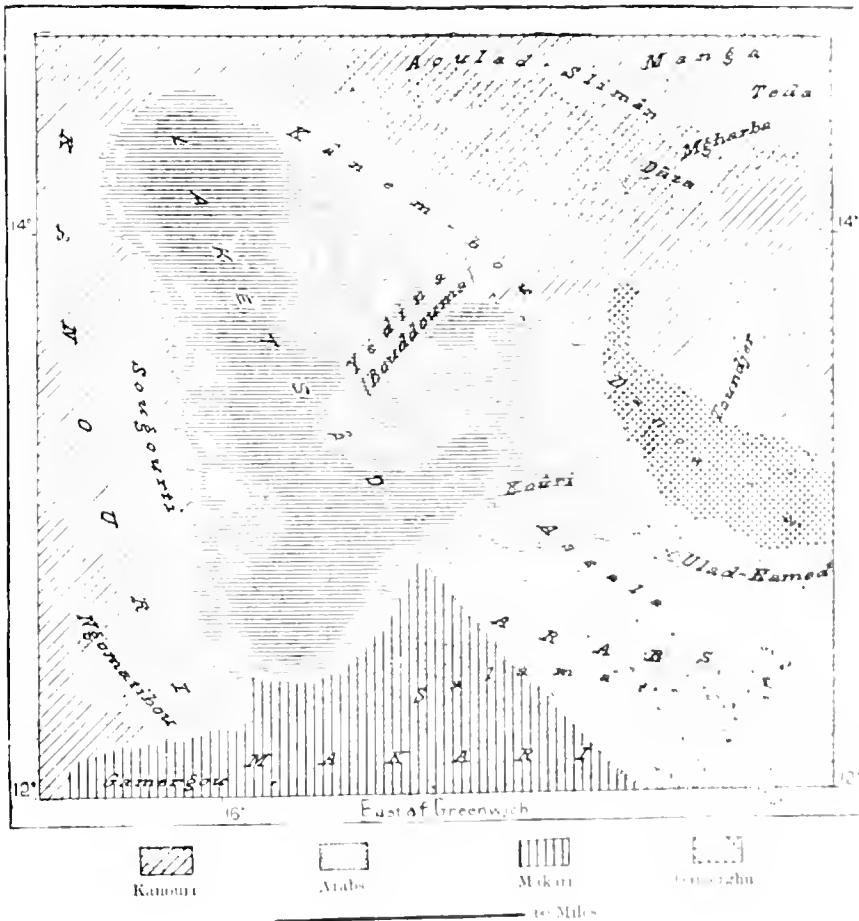
The kingdom of Kanem was for five hundred years, from the beginning of the tenth century, the hotbed of the Mussulman propaganda, and the most powerful kingdom in Central Africa. Then about 1500 the centre of political influence was displaced towards Bornu under the influence of the Bulala invaders from the east, a people akin to the Kanuri. Since that time Kanem has never recovered its independence, passing successively from the Bulalas and Kanuris to the Dazas and its present Arab rulers, the Aulad-Slimân, who are regarded as the masters of the country, although forming a mere fraction of the population, and in 1871 mustering not more than one thousand armed men. Yet this handful of warlike clansmen, often at feud among themselves over the distribution of the plunder, contrive to keep in a state of terror all the populations comprised between Bornu, Air, and Wadai. By the Dazas and others bordering on North Sudan they are called Minneminié or "Devourers," a name said to be given to them on account of

their gluttony, but which may be accepted in a figurative sense; for they have verily devoured the land on which they have pitched their tents, and in many places they have passed like a whirlwind, sweeping before them the inhabitants with their flocks and all their substance.

The Aulad-Slimàn come from the Mediterranean seaboard, where some of their kinsmen still survive, but whence the bulk of the tribe were driven southwards after long and sanguinary wars with the Turks of Tripolitana. Settling in Kanem

Fig. 174.—INHABITANTS OF KANEM

Scale 1 : 3,000,000.



just north of Lake Tsad, near the natural trade route between Sudan and the Mediterranean, they first raided in the Kwar Oasis and Bilma salines, in a few years capturing over fifty thousand camels. But having on one occasion fallen foul of the Tuaregs, these terrible children of the desert vowed vengeance, and in 1850 nearly exterminated the tribe. Yet the survivors, joined by others from the north, found themselves in less than twenty years strong enough to renew their depredations, and to revive the reign of terror which they still maintain over all

this region. In vain they are threatened with hell by the Senusiya emissaries if they persist in spoiling and slaying the "faithful." To them the "peace of Islam" is as naught, for scorning work they delight only in war and pillage. "True," they confessed to Nachtigal, "that we live in injustice and sin; but to earn a livelihood otherwise we should have to work, which our fathers never did, and it would be a shame and a treason not to follow their example. Besides, why are the cursed pagans on the earth except to work for a nobler race?"

By the Anglo-French Agreement of June, 1898, Kanem is transferred from the British to the French sphere of influence, because the Say-Barwa line is drawn at its eastern extremity down Lake Chad, and consequently leaves its northern and north-eastern shores, *i.e.*, Kanem, to the French.

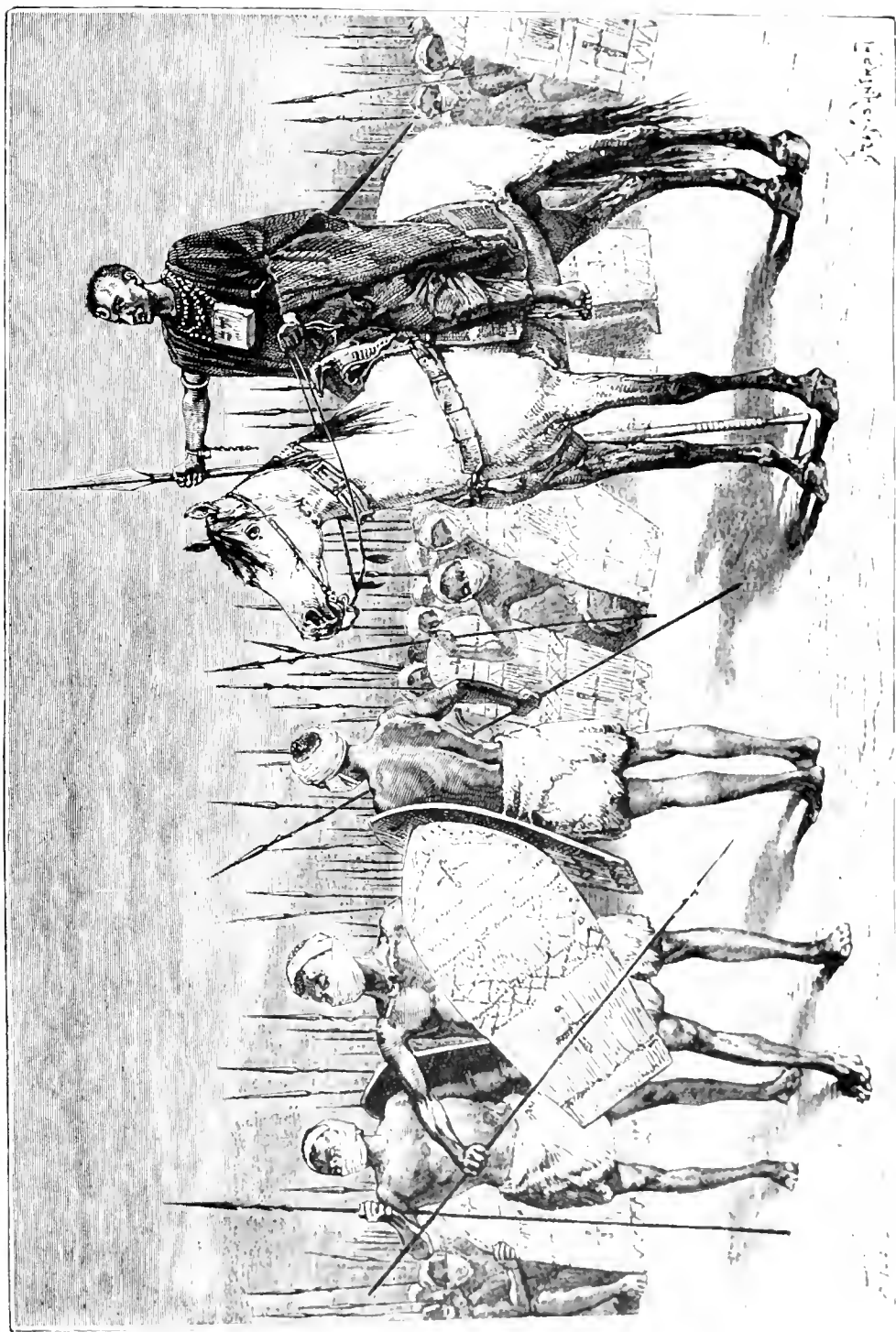
#### THE KANEM-BU AND KURI PEOPLES.

The Kanem-bu, or "People of Kanem," former masters of the land, are also immigrants from the north at an unknown date, as indicated by the very word Kanem, which means "South." The various Daza tribes who occupy the northern districts have also a unanimous tradition that their original homes lay to the north. They are in fact related to the Tedas, or northern Tibbus, with whom thousands of them still dwell at the foot of the Tibesti hills. The general movement of the population has thus been southwards, and in recent times large numbers of the Kanem-bu have been compelled to migrate still farther towards Bornu, the marshy shores and even the islands of Lake Tsad, where they have sought shelter from the raids of the Aulad-Slimân marauders.

The Kanem-bu are distinguished from the kindred Tibbu race by their darker complexion, larger stature, and less graceful carriage. In the remote districts their dress is limited to a skin or leather loin-cloth, and a high headdress fastened under the chin by a white bandage, which may be regarded as a survival of the litzani or veil worn by the Tibbus and Tuaregs of the desert. They have also retained the spear and other weapons of the nomads, except the shangormangor, or iron dart. They regard themselves as the elder brothers of the Kanuris of Bornu, who were originally an advanced colony of the Kanem-bu, and who during their long sojourn in a more fertile and civilised region acquired greater power and social refinement.

Of all the Kanem peoples the Ngijems and Danoas alone have succeeded in preserving their independence, never having been subdued even by the Aulad-Slimân. But in order to maintain the struggle they have had to shift their quarters more than once, and in recent times they have acknowledged themselves vassals of Wadai. The Danoas are settled in the south-east part of Kanem, grouped round the central station of Nguri in the woodlands some 24 miles from the shores of Lake Tsad. Physically speaking they differ in no respect from the Kanem-bu, and like them speak an idiom closely related to the Kanuri; but their traditions connect them with the Manga nation living on the banks of the Yeu in West Bornu.

The inhabitants of the Tsad islands, although for the most part belonging to



GROUP OF KANEMBU WARRIORS.



different races, are connected at least geographically with the populations of Kanem. Lying in the immediate vicinity of the east coast, the shifting insular groups are sufficiently accessible to afford a refuge to fugitives from the mainland. Hence numerous Kanem-bu, Dazas, and others are here settled either temporarily or permanently, while hundreds of Arabs have for generations been encamped round the inlet comprised between the Shari delta and the Bahr-el-Ghazal effluent.

The Kuri, occupying some fifteen islands north of the Bahr-el-Ghazal outflow, are regarded as the true aborigines of the archipelago, no traditions associating them with the mainland. They are of very dark complexion, tall and robust figures, resembling in appearance and speech the Makari Negroes on the south side of the lake. By intermixture with Kanem-bu, Arabs, and others, they have been diversely modified, forming in the northern islands the subrace of the Yedinas or Buddumas. Some sixty islands are occupied by these barbarians, who, according to Nachtigal, number about fifteen thousand, or one-half of the whole insular population. Stockbreeders, fishers, boatmen, and traders, the Yedinas also occasionally turn to piracy, and, although calling themselves vassals of the sultan of Bornu in order to have access to the Kuka market, they make no scruple of plundering the subjects of their pretended suzerain. During the floods they are able to penetrate into the very streets of the surrounding villages, where they slay the men and carry off the women and children. Yet the Bornu rulers have never fitted out a fleet to pursue these daring corsairs amid the intricate channels of their insular domain. Naval battles have often been fought on the lake, sometimes as many as two hundred large boats being engaged, but always between the Kuri and Yedinas themselves. These incessant wars decimate the population, which still increases naturally at a rapid rate, as amongst most fish-eating peoples. All the Kuri are Mohammedans, but the Yedinas are so in name only, many still practising pagan rites, and invoking Najikenem, the great spirit of the lake, who lashes the waters and strews them with wreckage.

The Bahr-el-Ghazal depressions are scantily peopled by some nomad Arabs, and the Sakerda and Kreda pastors of Daza speech. Having lost nearly all their horned cattle, most of the Kredas have taken to husbandry, retiring, however, farther east in order to place themselves under the Sultan of Wadai against the Aulad-Slimân marauders.

#### TOPOGRAPHY OF KANEM.

*Mao*, residence of the political representative of Wadai, lies on the verge of a great plain nearly in the centre of the historical kingdom of Kanem. But it is of recent origin, and in 1871 formed a group of about a hundred and fifty straw-thatched cabins. *Njimi*, capital of the state, said to have been a very large place before the Bulala invasion, lies a day's march to the north-west; and about the same distance to the west stands *Gala*, formerly peopled by the Kuburi, noblest of the Kanem-bu tribes. At a somewhat shorter distance south of Mao, and like it

peopled by natives of Kanuri speech, lies the picturesque village of *Yagguberi*, in the most productive part of Kanem. Some 12 miles to the south-east of this place stands the Arab town of *Mondo*, and midway between it and the lake follow *Nguri* and *Dibeloutchi*, the former capital of the Danoas, the latter of the Ngijems. It was in the neighbourhood of Mao that Benrmann was murdered in 1863. Thinking him proof against lead and steel, the assassins garotted him with a running noose.

#### BORNU.

According to the natives, the true name of Bornu is Barr Noa, or "Land of Noah," given to it by the Mussulman missionaries because of its surprising fertility. Then the legend, seizing on this word, related that here the ark settled after the subsidence of the waters, the African Ararat being sought in the isolated Hajar Teus rock, on the south side of Lake Tsad.

The limits of the kingdom are clearly defined only towards the east by the lake and the course of the Shari. In the north there can be no natural frontiers, the transition between the grassy and desert zones here shifting with the winds, the rains, and the incursions of marauding tribes. The southern confines are also very uncertain, thanks to the almost incessant warfare carried on between the Mussulman populations and the pagan highlanders. Towards the west the borderline is better marked between the civilised Bornu and Haussa states, although even here frequently modified by wars and local revolutions. The total area may be approximately set down at 56,000 square miles, with a population roughly estimated by Barth and Nachtigal at upwards of five millions.

#### INHABITANTS.

The extremely mixed inhabitants of Bornu, collectively called Berauna, present a surprising diversity of colour, stature, and other physical features. The term Kanuri, current in the country for centuries, designates not a particular race, but simply the more civilised residents, in whom have been gradually merged the various ethnical elements introduced by trade, slavery, war, or peaceful immigration. The sense of the word is unknown, although by a complacent popular etymology referred to the Arabic *nūr*, "light," whence *Ka-Nuri*, or "People of Light," earned by their mission of illuminators amid the darkness of the surrounding heathen world. The fanatical Fulahs, however, read it otherwise, substituting *nur*, "fire," for *nūr*, and designating the lukewarm Mussulman inhabitants of Bornu as *Ka-Nari*, or "People of Fire," that is, doomed to hell-fire.

South-west of the capital dwells the noble Magomi nation, who claim to be sprung of the same stock as the ancient dynasty which ruled for nearly a thousand years over Kanem and Bornu. They seem to have come originally from Kanem, as did also the Sugusti and Tomaghara people of the marshy coastlands, and the Koyams west of Kuka, who alone have preserved the camel as a domestic animal. The So, or true aborigines, were gradually absorbed by these immigrants

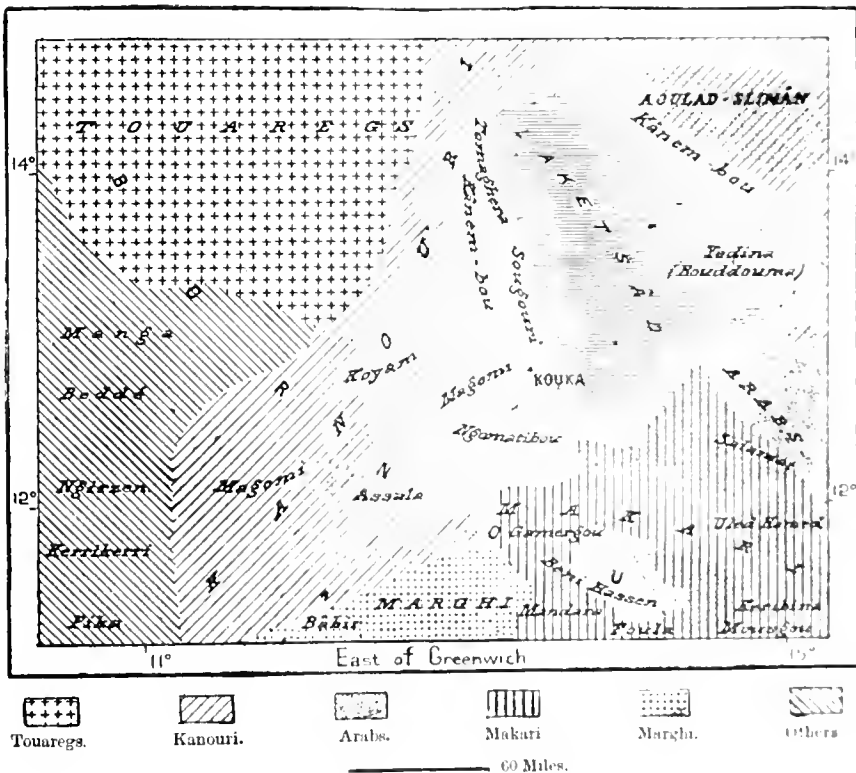


from Kanem and by the Makari intruders from the south, and appear to be now best represented by the Keribina tribe on the left bank of the Shari.

The south-eastern districts are held by the Makari (Kotoko) nation, who helped the Kanuris to crush the aborigines. Of darker complexion and more uncouth form, the Makari seem to be also less intelligent than the other Negroes of Bornu; nevertheless, they are distinguished for their industrious habits as peasants, artisans, and fishers, and the products of their industry are easily recognised by their freer style in the bazaars of Sudan. The peaceful Gamergus, near the southern extremity of the lake, and the Mandaras (Wandalas), on the slope of the

Fig. 175.—INHABITANTS OF BORNÜ

Scale 1 = 5,000,000.



hills still farther south, differ little in physical appearance, habits, and speech from their Makari neighbours, and like them have embraced Islam and accepted the authority of the Bornu sultan. But in the more inaccessible parts of these uplands dwells the chief of Sugar, an independent prince who is said to combine a sort of priesthood with his royal functions, sacrificing cocks and sheep to the mountains. The Musgos also, akin to the Mandaras and dwelling on the left bank of the Shari, have remained pagans, whose chief fetish is a spear stuck in the ground. The Musgos, who recognise the sovereignty of Bornu, and who call themselves "Mussulman," that is, "civilised," are a finer and stronger people than the

Makari, but of much ruder habits, wearing nothing but a leather apron about the loins, treating their horses with atrocious cruelty, and slaying their prisoners by chopping off one leg and letting them bleed to death. The women insert bone or metal plates in both lips, which in conversation add a strange clapping sound to their harsh guttural language.

In the hilly region west of the Musgos, between Bornu and Adamawa, dwell other pagans, such as the Marghi, worshippers of *Tumbi*, whose abode is the finest and most wide-branching tree in the forest. With their southern neighbours, the Sani, they form a distinct race, whose dialects bear no resemblance to those of Bornu, and only a very faint affinity to those of the Musgos and Babirs. In some respects these idioms would seem to form the transition between the typical Negro languages of Sudan and the Bantu family of South Africa. The Marghi are also a much finer race than the surrounding peoples, tall, symmetrical, with almost European features, crisp, but not woolly hair, and reddish or bronzed complexion. The Marghi have no villages, properly so-called, their dwellings being always isolated and surrounded by a plot of ground belonging to the family. But this arrangement exposes them all the more to the attacks of the slave-hunters, and when Barth came amongst them as a friend and not to raid, like all other strangers, they thought he must be some god who had appeared in their midst to make them for a moment forget the woes and terrors of life. They were formerly a very powerful nation, capable even in the middle of the present century of raising a force of thirty thousand warriors. They mourn only for their young men, rejoicing when the aged, weary of life, have been gathered to their fathers. Although reputed barbarians, the Marghi are in some respects more civilised than their neighbours; thus they have long practised inoculation, scarcely known elsewhere in Bornu.

In the extreme north-west dwell the Manga people, who are quite distinct from the Kanuri, and related perhaps to the So aborigines. They are a rude, half-savage race, who merge westwards with the Haussawa, and towards the south with other barbarous tribes, such as the Bedde, Ngizzem, Kerri-Kerri, Fika, and Babir, occupying the hilly borderland between Haussa and Bornu.

In Bornu the Arabs are very numerous, those known by the name of Shoa, or Shua, numbering at least a hundred thousand. Although settled in the country for several generations, and often intermingled with the indigenous populations, they still speak the language of the Koran with remarkable purity. The largest tribe are the Salamats, settled in the Makari country west of the Shari river. Owing to the moist climate, the Arab population is certainly diminishing. They are no longer able to supply the numerous cavalry formerly placed at the service of the sultan, while the annual tribute of horses and butter has also considerably diminished.

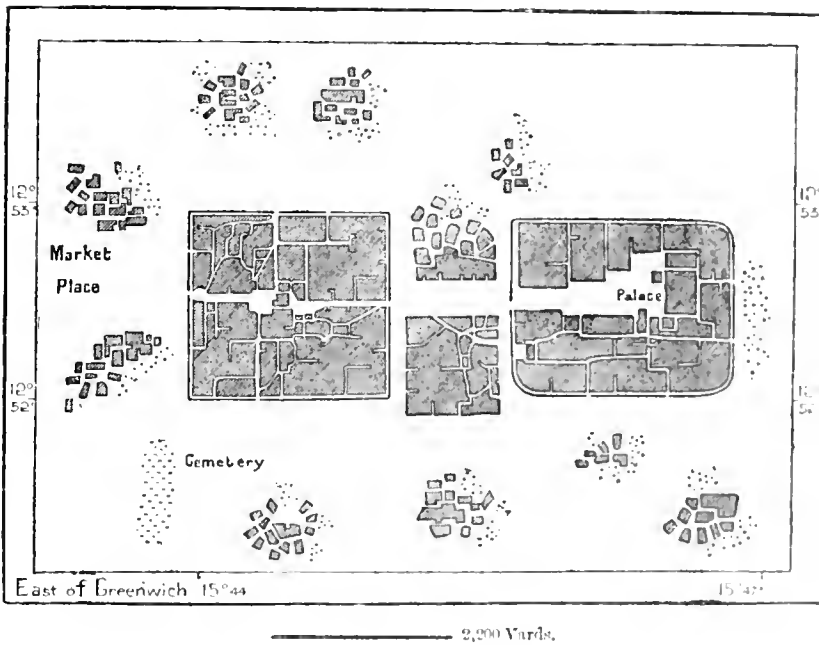
The Kanuri language, while intimately related on the one hand to the northern Teda, Daza, Baele, shows on the other certain surprising analogies with the Sudanese languages proper, such as the Haussa, So, and Baghirmi. In the Tsad basin it has become the dominant speech, everywhere superseding Arabic and all

other rivals as the chief medium of intercourse. Even at the sultan's court Arabic has ceased to be the official language, even those who understand it affecting to require the aid of an interpreter when it is used in their presence.

The Kanuri people are distinguished by some remarkable qualities. Extremely industrious and mostly monogamous, they take their share jointly with their wives in field operations, in weaving, dyeing, and all other handicrafts. Thus woman is held to be man's equal, in some respects even enjoying certain prerogatives, such as the right of being first saluted. Temperance is a national virtue, and in this respect the converts are much more rigid observers of the law than the preachers. Instruction is widely diffused amongst the Kanuri and neighbouring peoples; all

Fig. 176.—KUKA.

Scale 1 : 72,000.



the towns have schools attended by boys, and Kuka possesses the most valuable library in the whole of Sudan east of Timbuktü. The people of Bornu are generally regarded as the most cultured in Central Africa, and their industrial products are the most highly esteemed in all the bazaars. They are skilled workers in metal, and can even cast guns, but have hitherto done nothing to improve the communications. Many of the rivers are still crossed on frail rafts constructed of calabashes and reeds, and the general absence of highways, and consequent high price of merchandise, explains the existence of certain industries which would soon disappear were greater facilities afforded for the development of foreign trade.

#### TOPOGRAPHY.

*Kasr Eggomo*, or *Birni*, first capital of Bornu, stood near a lake in the Middle  
AFRICA II.

Yeu basin on the border of the Manga territory. Although the enclosure is only 6 miles in circumference, it is said to have contained at one time as many as two hundred thousand inhabitants, but both Birni and the neighbouring *Gamberu*, residence of the sultan, were destroyed in 1809 or 1810 by the conquering Fulahs. The court was then removed to *Kafila*, called also *Birni-el-Jedid*, or "New Birni," which lay much nearer Lake Tsad, but which in a few years was replaced by *Ngornu*, near the south-west angle of the lake. Then followed a change of dynasty, which led to the foundation of a new capital, called *Kuka*, from a baobab growing on the spot. *Kukawa*, the form current in West Sudan, is said to mean in Kanuri "the two baobabs."

Kuka, one of the great cities of the interior of the continent, is said by Nachtigal to have a population of from fifty to sixty thousand, without counting the pilgrims, traders, adventurers from all parts of Sudan and of the Moslem world from Morocco to Mesopotamia. It consists of two distinct quarters, forming two regular parallelograms surrounded by walls, with groups of cabins dotted round about. From the neighbouring plain, stretching away towards the south-west shore of the lake, the city is scarcely visible, the trees overshadowing every house giving it rather the appearance of a thickly wooded tract. The western and more populous section, forming a regular quadrilateral nearly two square miles in extent, is the centre of all the life and trade of the place, the eastern section, containing the royal palace and most of the courtiers, being comparatively deserted. During the rainy season the streets are converted into quagmires, and stagnant ponds are even formed, in one of which Nachtigal saw a little crocodile living on the offal thrown to him by the neighbours.

Once a week a great fair is held on the west side, attended by over ten thousand persons, and stocked with European and Eastern wares of all sorts. Needles are in great demand, and Barth, who had a large supply, became known as the "Prince of Needles." Visitors are surprised at the low figures for which costly goods are offered for sale, which is due to the fact that this is the great market for second-hand goods imported especially from Egypt and Asia Minor. But of all the "commodities," the most important are human beings—slaves, eunuchs, court dwarfs. In 1870, Nachtigal witnessed the departure of a caravan of fourteen hundred slaves, of whom one-third were destined for Egypt, the rest for Rhat and Tripoli. Rohlfs speaks of another conveying four thousand captives, which left in successive detachments, taking a fortnight to get clear of Kuka. Since the first half of the present century the legal currency has been Maria Theresa crown pieces, the Spanish douro, and cowries, four thousand of the last mentioned being equivalent to the crown piece at the time of Nachtigal's visit.

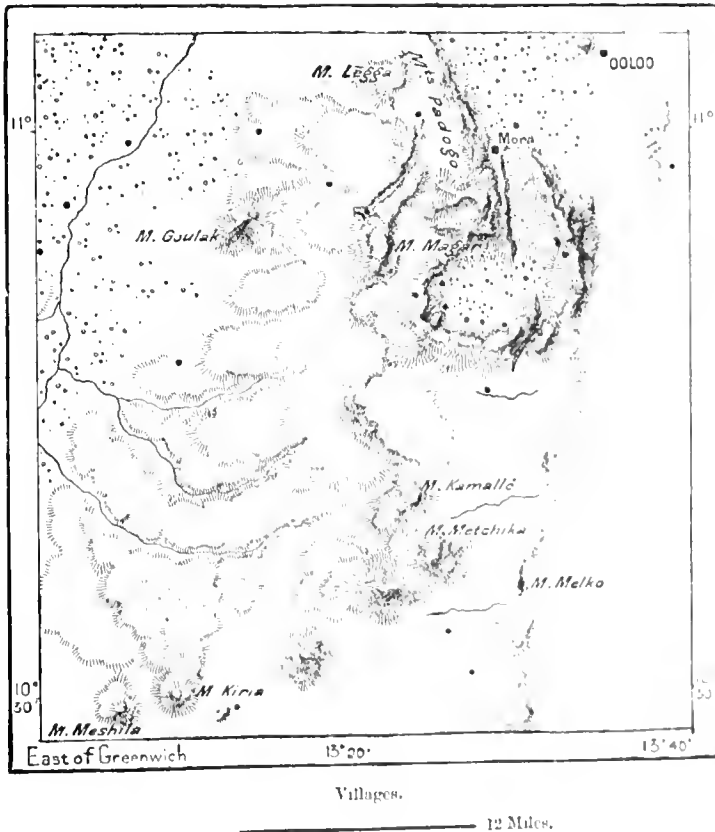
Some 30 miles south-east of Kuka, and close to the lake, lies *Ngornu*, the second largest town in Bornu proper. Owing to the periodical inundations and consequent erosions, Ngornu, like all the coast villages, is constantly moving westwards. To the perils of the floods are added the incessant incursions of the Yedina pirates, who lie in ambush or fall suddenly on the people working in the outskirts. *Kauca* and *Barwa* are also exposed to these surprises, while *Ngigmi* and the other coast

towns farther north are exposed to the attacks of the equally formidable Tuareg and Aulad-Slimân nomads.

In western Bornu, watered by the Yeu, Clapperton, Barth, and Rohlf's mention several towns with over ten thousand inhabitants. Near the ancient Birni is the village of *Ngurutna*, where Richardson died of exhaustion in 1851. Farther west follow *Surrikolo*, *Borsari*, *Khadeja*, *Bundi*, *Mashena*, *Gummel*, and *Birmenara*, the last two on the frontier and peopled by Haussawa, although belonging to Bornu. The north-west angle of the kingdom is occupied by the vassal state of *Sinder*

Fig. 177.—THE MORA MOUNTAINS.

Scale 1 : 740,000.



(Zinder), visited and sometimes plundered by the Tuareg nomads. Here is also a little settlement of Jewish "converts" from the Mediterranean seaboard. The capital, built at the east foot of a bluff, has been called the "Gate of Sudan," owing to the Tuareg traders in salt, who have formed their camping ground in the vicinity.

The Munio hills, which project like a promontory into the steppe bordering on the desert, have also some important places, such as *Gura*, *Fashak*, and farther south, *Buné* and *Suleri*, near which is a natron lake, and another with two basins.

one of fresh the other of intensely salt water. All the towns of the Munio district are built on the model of those of Mauritania.

On the trade route leading from Kuka south-west to the lower Benue one of the chief stations is *Mayommeri*, residence of one of the great dignitaries of the empire. Here Rohlf's saw an ostrich farm, probably the only one in Sudan. Farther on the road traverses *Mogodom* in a cotton-growing district, and *Gujba*, partly inhabited by pagans.

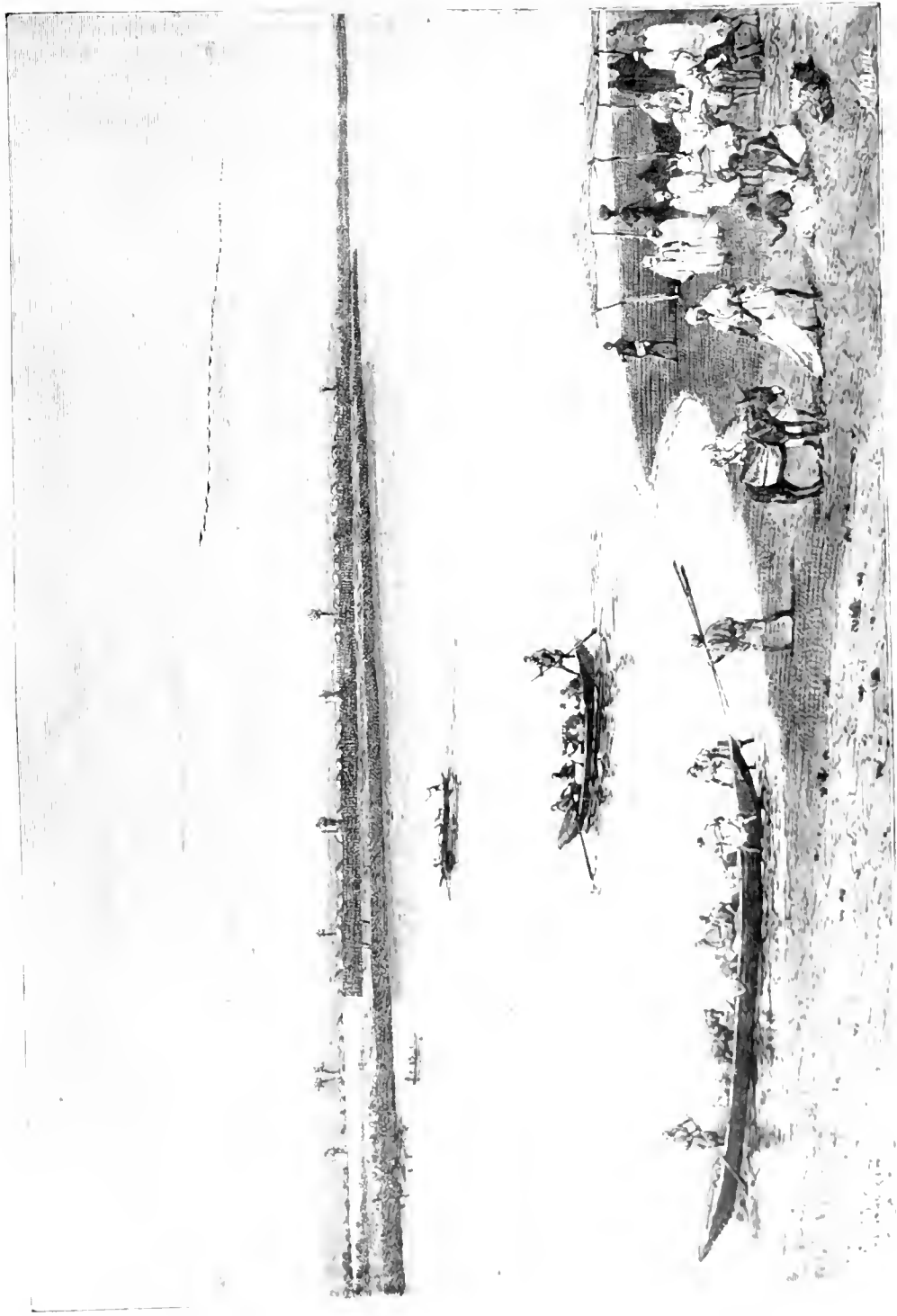
The southern extremity of the lake, here skirted by the historical highway between Wadai and West Bornu, also contains numerous towns, such as *Yedi*, regarded as the cradle of the Yedina islanders; *Marté*, on the ethnological frontier of the Kanuri, Makari, and Arabs; *Misséné* and *Ngala* on the route to Wadai, and in the Shari delta, *Ajadé* and *Guféi*. *Elf* (*Alfu*), said to be the oldest place in the country, is carefully avoided by wayfarers, owing to the magic power attributed to its inhabitants.

*Logon-Karnak*, capital of the Logon territory, is the chief station for the traffic between Bornu and Baghirmi, to both of which conterminous states its Mohammedan sultan is tributary. The vassal states in the basin of the Mbulu have also some large places, such as the stronghold of *Dikoa*, which was often the residence of the Bornu kings; the neighbouring *Ala*, formerly capital of a state; *Mai-dug-eri*, inhabited by many thousands of the Gomergu nation; *Mabani* and *Kasukula*, large markets in the Ujé territory where the Mohammedans of the north and the southern pagans exchange their commodities. Farther on at the foot of the Mora mountains stands the city of *Doloo*, divided into two quarters by a winding stream. This extensive place, which is encircled by modern ramparts, is the capital of the Mandara state, now tributary to Bornu. Here Vogel was held captive for a month, and was frequently in imminent danger of his life. South-west of Doloo are seen the ruins of the former capital, *Mora*, standing on the escarpment of a rock over 650 feet high.

#### ADMINISTRATION.

The Mai, or Sultan of Bornu, usually designated by the title of Sheikh, is an absolute despot, "the Lion, Conqueror, Wisdom," who nevertheless condescends to be assisted by a council including, besides the members of his family, the Kokenawa, or military chiefs, and the official representatives of the various races inhabiting the State. Most of the high offices are held by slaves, and even under the previous dynasty the commander-in-chief, ranking above the prince royal, was always a slave.

The permanent army, which is of considerable strength, is partly distributed along the frontiers, partly attached to the person of the sovereign for purposes of parade and prestige. The sultan possesses some artillery, and the *élite* of the troops are armed with rifles, some companies even wearing European uniforms, although of the most varied and fantastic fashions. The cavalry still wear armour, as in the Middle Ages, sometimes coats of mail, sometimes thickly wadded cover-



THE LOU-ON-FIEN—GENERAL VIEW.





ings reaching down to the feet. Of these armoured corps there are altogether about a thousand, more formidable in appearance than really dangerous. The men get no pay, but when invalided receive allotments of arable land, the great military and civil dignitaries being remunerated with fiefs.

Soon after the revolt of the Mahdi, Rabba, a military adventurer from Egyptian Sudan, moved westwards and overran the greater part of Bornu and its dependencies. But he was totally defeated and expelled the country by Sandah, the rightful sultan, on November 21, 1895. By the Anglo-French agreement of 1890, and the Anglo-German agreement of 1893, nearly the whole of Bornu is comprised within the British sphere of influence, and since the overthrow of Rabba has virtually recognised the suzerainty of Great Britain.

### BAGHIRMI.

Baghirmi, properly so called, consists of the open and somewhat marshy plain comprised between the Lower Shari, Lake Tsad, the Sokoro hills, and the cliffs skirting the west side of Lake Fitri, an area altogether of scarcely 20,000 square miles. But to Baghirmi also belong politically the conterminous regions inhabited by tributary pagan populations, or to which slave-hunting expeditions are regularly sent, raising the total area to more than 60,000 square miles. According to the Arab writers, the natives were called Baghirmi (Bakirmi, Bakarmi), from the two words *baggar miya*, or "a hundred cows," because the first sovereigns of the country had imposed a tribute of a hundred head of cattle on each tribe subject to them. But in the native language these called themselves Barnaghé, of which Baghirmi may be a corrupt form.

The population, estimated by Barth about the middle of the century at one million five hundred thousand, appears to have been since reduced by at least one-third by sanguinary wars with Wadai, famines, and marauding expeditions. Like the Kanuri of Bornu, the civilised inhabitants of Baghirmi proper are a mixed people descended from the So, the Makari, and other aborigines, intermingled with Arabs and Fulahs, and further modified by the introduction of Mohammedan culture. According to the local records and traditions, the founders of the state came from Arabia at the end of the fifteenth or beginning of the sixteenth centuries, when a general movement of migration and conquest was in progress, as at present, from east to west.

### INHABITANTS.

The Baghirmi are physically a much finer people than the Kanuri, the women especially being distinguished by really pleasant features and an agreeable expression. The men are well built, with robust wiry frames, seldom of very dark complexion and mostly with a reddish, almost metallic tinge. They are generally intelligent and skilful craftsmen, noted especially for their excellency in weaving, dyeing, leatherwork, and embroidery. On his return from the victorious expedi-

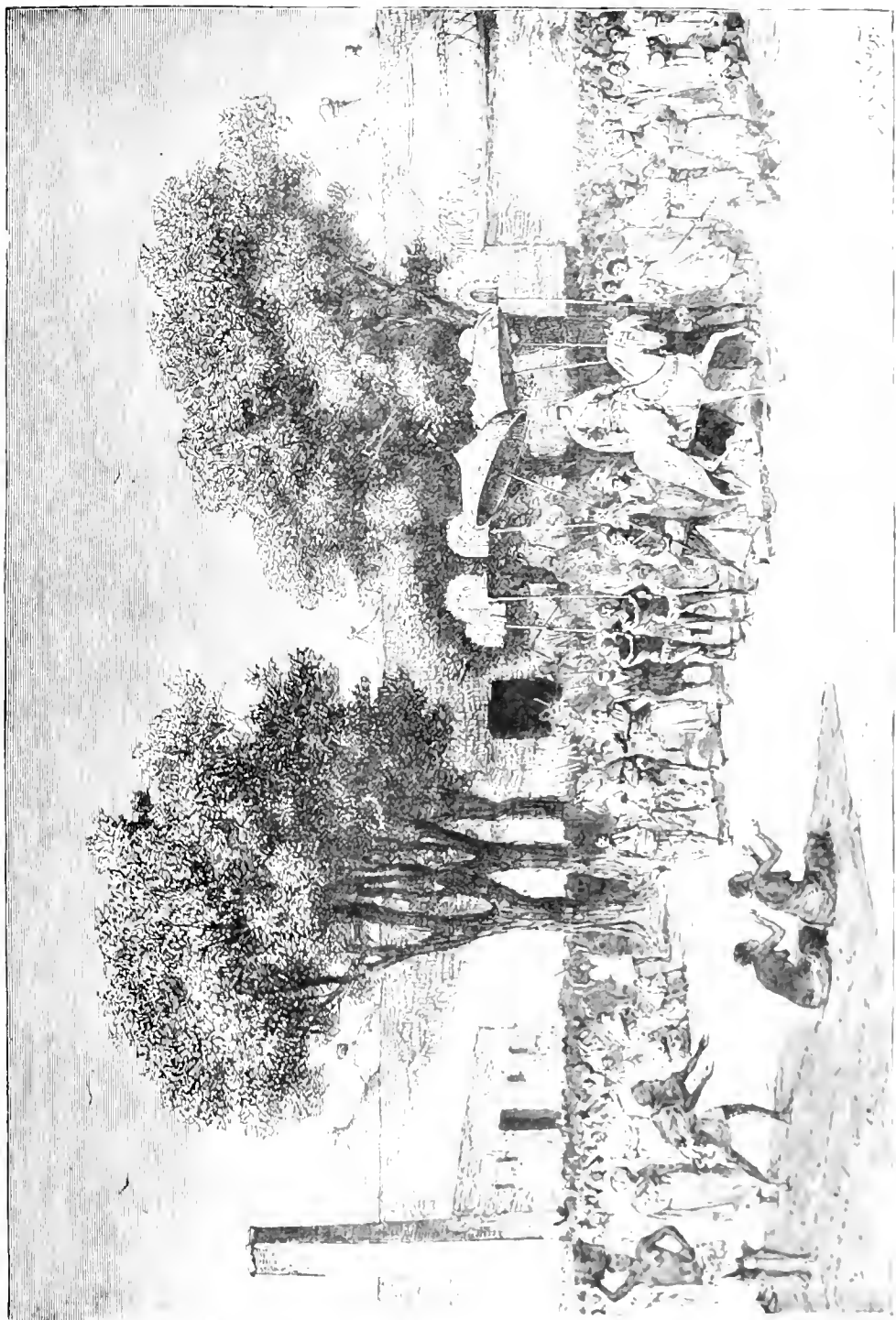
tion to Baghirmi in 1871, the Sultan of Wadai is said to have carried off as many as thirty thousand builders, weavers, tailors, and dyers, at the same time forbidding the natives to wear fine robes. Thus the local industries were greatly impaired, and it would be no longer possible to build a brick palace such as that occupied by the Sultan of Masséna. On the other hand, so accustomed are the people to the use of arms that honest labour is despised by the upper classes, while brutal cruelty is held in honour. The last sovereign was proud of the surname Abu-Sekkin ("Father of the knife"), earned by the wholesale butchery of guests to whom he had sworn faith and friendship. Although despising their Kanuri and Wadai neighbours, as inferior in martial valour, the Baghirmi have never succeeded like them in establishing a really powerful state, their political status having mostly been one of more or less disguised vassalage. Before 1897 they were tributary to Wadai, and since then have accepted the French protectorate.

Amongst the polished Baghirmi dwell representatives of all the surrounding races, Kanuri everywhere, Makari in the west, Kukas and Bulalas in the north, Arab agriculturists (Assela, Salamat, Aula-Musa, Shoa and others) also chiefly in the north, Fulahs mainly in the south. The Fulahs visited by Nachtigal called him "cousin," saying that their ancestors had come like him from the shores of the Mediterranean.

The partly or even completely independent peoples in the southern and eastern districts are mostly related to the Baghirmi in speech, while resembling them in physical appearance. They are split up into an infinity of ethnical fragments, each district having its special group, which again becomes broken into fresh subdivisions by every famine, inundation, or slave-hunting incursion. Most of the tribes are distinguished by some special tattoo or other physical mark: the Gaberi of the southern riverain plains by the extraction of an upper and lower incisor; the Saras farther to the south by filing their teeth to a point, like so many of the Nilotic peoples; the Kufus, a branch of the Saras, by piercing the lips for the insertion of little rods round the mouth.

Tree-worship survives amongst the Somrai, neighbours of the Gaberi, who swear by the bark of a species of acacia. All however believe in a supreme being whose voice is the thunder, and who is enthroned in the clouds. To this god they offer bloody sacrifices of cocks and goats in shrines from which women and children are excluded. The "wise men" interpret to the vulgar the decrees of the deity, reading his will in the blood of the victims, in their last spasms, or the position of the dead bodies. They also denounce the wicked wizards, their rivals in knowledge of the occult science. When a young man dies two wise men take his body, which they then drag, as they say, irresistibly to the hut of the murderer. Then blood is shed for blood, and the property of the "culprit" is shared between the chief and the injured family. Amongst the Saras a tuft of grass or foliage placed upon the magician's head throws him into a divine frenzy, during which he reels, bounds, capers about, staggers as one overcome with drink, falling at last before one of the audience, who is forthwith devoted to death. Amongst the Niyillems, on the right bank of the Shari, young maidens are said to be buried

MISSION TO SOUTHERN JORDAN





alive in the grave of the chief, and the epileptic are slain as being possessed by the evil one.

Polygamy is general among the wealthy classes in Upper Baghirmi, where some remains of matriarchal institutions are also said to survive. Thus one of the petty states below the Ba-Busso and Bahr-el-Abiad confluence is known by the name of Beled-el-Mrà, or "Women's Land," because the government is here always entrusted to a queen.

Although nominal Mohammedans, the Baghirmi make no effort to spread Islam amongst their pagan subjects. They even look askance at the proselytising fervour of the Fulahs, the reason being that, once converted to Islam, the peoples amongst whom their gangs of slaves are recruited could no longer be regarded as vile heathens whom it is lawful to plunder and enslave. The supplies of young men and women for the Sudanese markets are obtained especially from the Sara tribes, who are usually designated by the name of "Vile Slaves." To avoid the razzias of the Baghirmi slave-hunters many tribes voluntarily pay the annual blood tax, uniformly fixed at "a hundred head," and in order to procure these victims such tribes organise marauding expeditions on their own account. When supplied with rifles against men armed only with spear, arrow, or axe, the hunt is always successful, and Nachtigal was obliged to assist at the capture of several Gaberi families who had taken refuge in two large trees. Nevertheless there are tribes, protected by their position, who have hitherto defied all the attacks of the Baghirmi "bloodhounds." Such are the Sokoros, whose numerous little republican communities are grouped amid natural strongholds of steep crags, which the warriors of the plains do not venture to assail.

#### ADMINISTRATION AND TOPOGRAPHY.

Like nearly all the central African governments, that of Baghirmi knows no law except the ruler's whim, no limit except the power of rival neighbours. But to guard against dangerous enemies in his own household, the sultan, on ascending the throne, causes each of his brothers to be blinded of one eye, custom requiring the reigning sovereign to be free from any physical defect. His despotic powers are enforced by his numerous eunuchs and other functionaries, who impose the taxes and plunder the people at pleasure. The subject must approach his master in very humble attitude. On entering the sultan's palace all bare their breasts, fall on their knees, and bend forward with clasped hands. This rule of etiquette is dispensed with only in favour of the musicians, who are of royal blood, and of some Sokoro chiefs, whose warlike deeds have placed them above the common law.

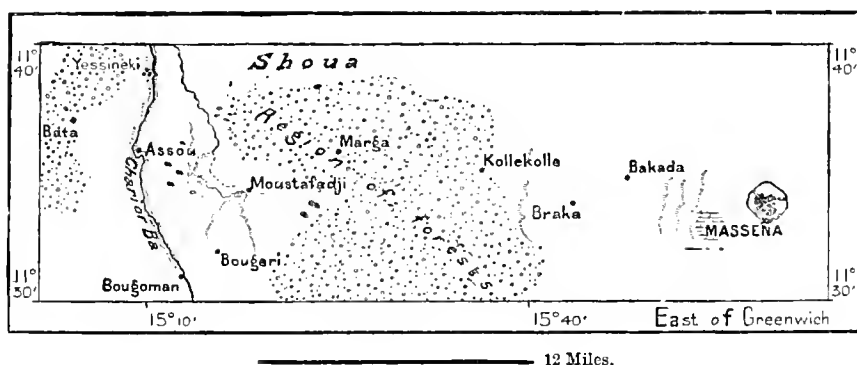
*Masséna* (*Massenia*), city of the "Tamarind-tree," capital of Baghirmi, was founded over three centuries ago in the vast plain of the Lower Shari, about 12 miles north of Batchikam. Within the walls is comprised a considerable extent of cultivated land, market-places, and even a temporary lake, presenting somewhat the same aspect as that of Kano, and rendering the city very insalubrious. *Masséna*,

which was captured by the Sultan of Wadai in 1871, is the largest town in the kingdom, and before the siege had a population of at least twenty thousand. According to Nachtigal, *Bugoman*, on the left bank of the Shari, is only one-fourth as large, but occupies one of the most convenient points for caravans to cross the river. Together with its neighbour, *Kokorotché*, it supplies nearly all the corn required by the markets of the capital.

*Kanga*, perched on a northern bluff in the Gheré hills to the east of the kingdom,

Fig. 178.—MASSENA AND EAST BAGHIRMI.

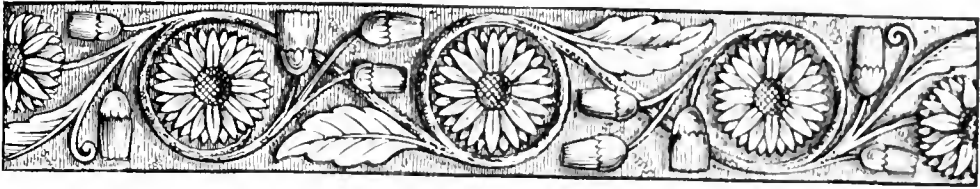
Scale 1 : 545,000.



is held by an independent Sokoro tribe; yet it is regarded by the Bagirmi nation as a sort of metropolis, being the traditional home of the royal dynasty. Southwards stretch the regions watered by the Shari headstreams, which were formerly supposed to be connected with the Welle-Ubanghi system, but are now (1899) known to take their rise on the northern slope of the Congo-Chad divide.

By various international conventions Bagirmi is recognised as lying within the French political zone, and in October, 1897, the present Sultan, Gaurang, concluded a treaty with M. Gentil, accepting a French Resident in Masseña. But the Sultan was soon after driven from his capital by the followers of Rabba, who had swarmed into Bagirmi after their expulsion from Bornu in 1895.





## CHAPTER IX.

### THE CAMEROONS.

#### GENERAL SURVEY.



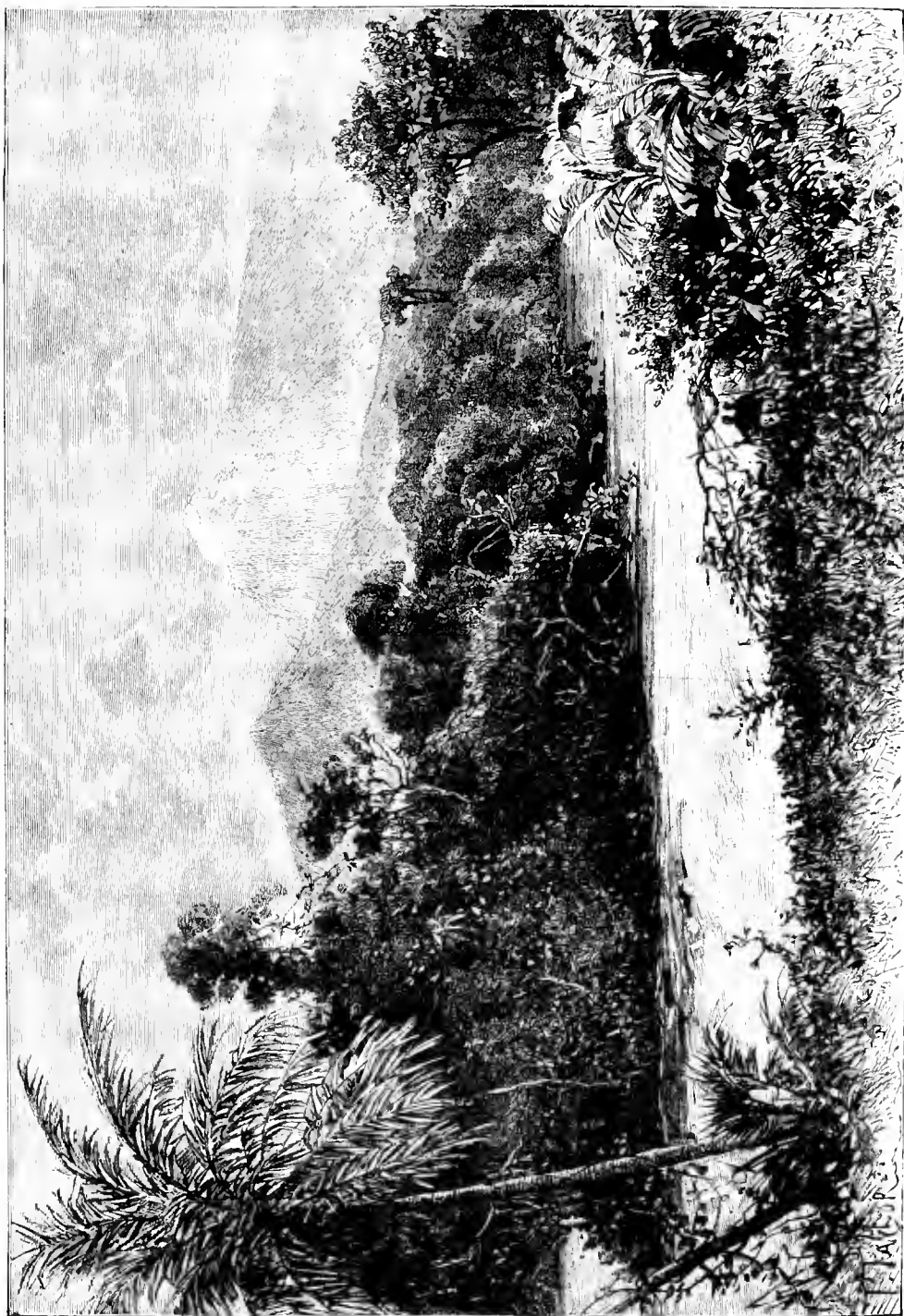
THE Portuguese term Camaráos, or "Prawns," was originally applied by navigators to the chief estuary at the extreme head of the Gulf of Guinea, but it has been gradually extended under the English form of Cameroons and German Kamerun not only to the basin of the Río de Camaráos and surrounding plains, but also to the superb volcanic mass which continues on the mainland the chain of the Annobon and Fernando-Po islands, and recently to all the territory by the Germans laid down on the map as constituting their future possessions in this part of Equatorial Africa. The Portuguese had applied to the great mountain the name of Terra dos Ambozes, that is, the land of the Zambus, or of Amboise spoken of by the old French geographers. One of the islands in the gulf is still called the Isle of Ambas.

How the Germans, after long political discussions, have become masters of this extensive region is already matter of history. English missionaries had for some years maintained a station at the foot of the mountain; English had become the common language of the coast people, and the British flag had even been hoisted in many villages of the interior. On the other hand, German traders had factories on the coast and had purchased land on the slope of the hill. Conflicts had taken place between the agents of the two nations, giving rise to irritating correspondence between the respective Governments. At last Great Britain agreed in 1885 to waive all claims to the Cameroons Mountains, and recalled her consuls and other agents.

South of the estuary the situation was different; this seaboard, held by a multitude of petty chiefs, having been visited by numerous traders, all of whom had concluded conventions with these kinglets and purchased territory for a few rifles and casks of fiery spirits. Old documents showed that such and such points and river mouths belonged to France or to Spain, and when the European Governments were seized with the recent mania for annexations, this coast was claimed partly by Germany, partly by France. But in 1885 the German factories in South Senegambia were by special treaty ceded to France in exchange for all

her claims on this seaboard. Here the German territory is separated in the

Fig. 179.—VIEW TAKEN AT THE FOOT OF THE CAMEROONS.



north from the British possessions in the Niger basin by the Memé, or Ric de



Rey, and in the south by the Etembué, or Rio del Campo, from the French colonial domain, the total distance along the coast being about 300 miles. Towards the interior a straight line, drawn from the north-west frontier of the Cameroons to the south-west corner of Lake Chad, marks the conventional limits between the British and German imaginary possessions; but although a large portion of the region claimed by the latter power has been explored, only a very small part has been under its direct influence. The whole area was estimated in 1899 at 191,000 square miles, with a probable population of 3,500,000.

The Cameroons Mountain, facing Fernando-Po, and towering over 3,000 feet above the insular peak, is one of the most imposing summits on the surface of the globe. It is certainly exceeded in height by Kenia, Kilimanjaro, the Abyssinian Simen, and possibly even by some of the Atlas crests, but, owing to its position on the seacoast, it presents a much bolder appearance than all these mountains. From the creeks winding round the wooded headlands at its foot an uninterrupted view is commanded of the whole mass nearly 14,000 feet high, including even the terminal points known as the "Three Sisters." On the slopes follows a succession of climatic zones, revealed below by a forest vegetation, higher up by a herbaceous flora, and towards the top by ashes and bare lavas, at times streaked with snow. So formidable does the giant appear to the natives that they have named it Mongama-Loba, that is, the "Mountain of the gods." It was first ascended by Merriek in 1847, but a party of Alpine climbers, including Burton, Calvo, and the botanist Mann, were the first to reach the summit in 1861. Since then several explorers have also mounted to the terminal crater.

Although not yet entirely surveyed, there can be no doubt as to the volcanic nature of the mountain, which everywhere presents heaps of ashes, lava streams, even some recent scoriæ, and dozens of lateral cones, one of which, the Little Cameroon, towards the south-west, seems, from certain points of view, almost a rival of the supreme crest. At the time of Burton's ascension smoke was emitted from the great crater, and the natives have often spoken of vapours rising from the highest peaks. The whole mass is, in fact, a vast volcano resting on a base 800 square miles in extent, and completely isolated on all sides.

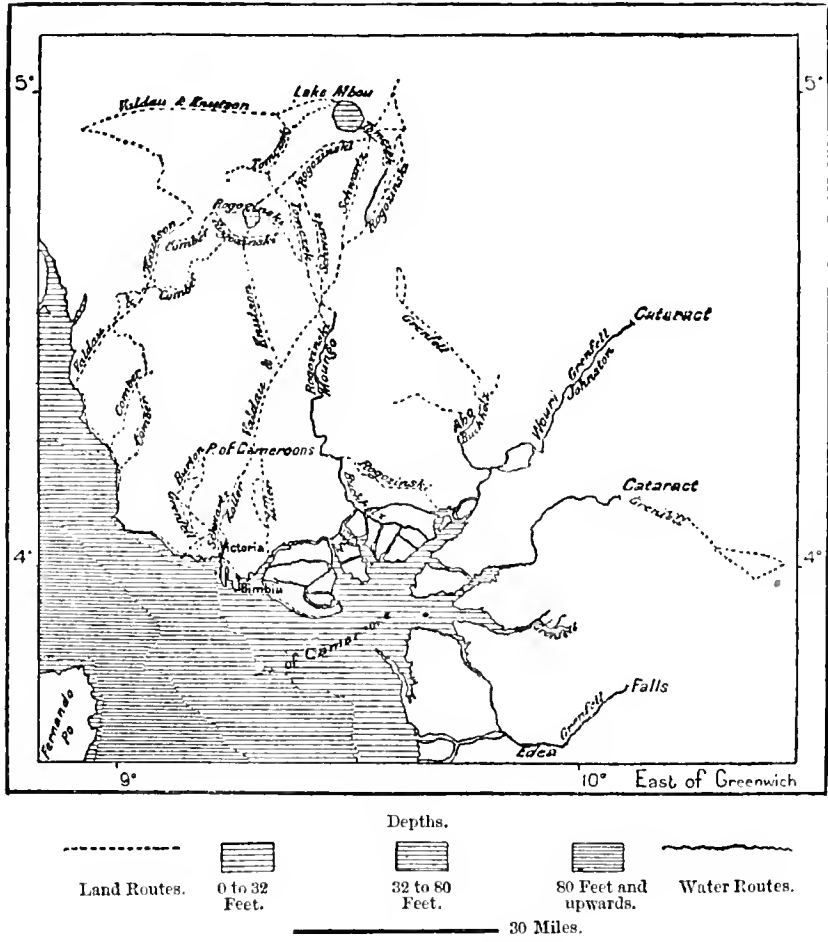
The forest vegetation clothing the lower slopes preserves its tropical character to a height of over 6,000 feet. The cultivated species, such as the cocoa-nut, banana, and oil-palm, disappear successively, not one being found above 3,500 feet, the limit of the zone inhabited by the natives. But the *criodendron*, *bombax*, and other large trees, generally festooned with creepers, ascend much higher, the upper verge of the timber zone assuming a European aspect, and at last abruptly yielding to the grasses carpeting the more elevated crests. Towards the summit all is bare as if swept by the wind, except where a few trailing plants find shelter in the hollows. The Alpine flora is very poorly represented, doubtless owing to the relatively recent formation of the volcano, which has been developed by innumerable layers of superimposed lavas and scoriæ.

Notwithstanding the heavy rainfall springs are rare, none being met higher than 9,100 feet, a phenomenon due, as in Etna, to the extremely porous character

of the soil. Hence health-resorts for Europeans can be founded only at the few points where spring-water occurs. In any case the fierce gales prevailing on the upper slopes would render a prolonged residence almost impossible.

From the heights dominated by the Albert Peak, the eye sweeps over a vast horizon, commanding a superb view of the surrounding lowlands and island-studded waters, and towards the north of other cone-shaped masses. In 1885 Schwarz and Knuston, who penetrated over 70 miles in this direction, found the

Fig. 180.—CHIEF ROUTES OF EXPLORERS IN THE CAMEROONS.  
Scale 1 : 1,800,000.



northern horizon bounded by a range of peaks presenting every variety of outline, forest-clad at their base, and apparently from 8,000 to 10,000 feet high. Being disposed in a line with Fernando-Po and the Cameroons, these Ba-Farami mountains, as they have been named from the tribe inhabiting their slopes, are also perhaps of igneous character, more especially as the intervening plains are studded in many places with blocks of lava. North-west of the Cameroons rises another mountain mass some 3,000 feet high, known as the Rumbi, which

dominates the low-lying lands carved into peninsulas by the lateral estuaries of the Rio del Rey.

#### RIVERS.

The Cameroons are almost completely encircled by marine or fluvial waters. On the west the broad Rio del Rey estuary is joined by the Memé, whose numerous affluents rise on the Ba-Kundu plain, intermingling their sources with those of the headstreams of the Mungo, which flows to the east of the Cameroons. Near the water-parting lies the little lacustrine basin, 6 miles in circumference, to which Mr. Comber has given the name of Lake Rickards. It seems to be a flooded crater with no emissary in the dry season, and in the wet season probably sending its overflow to the Mungo.

Some 36 miles to the north-east lies the larger Balombi-na-Mba, or "Elephant Lake," also apparently an old crater draining to the Mungo, which here falls through a series of rapids a total height of from 70 to 80 feet. Some 12 miles below these rapids the Mungo begins to be navigable for barges, and throughout its lower course, of about 70 miles, is obstructed only by one other rapid at all dangerous. But before reaching the sea it overflows into a broad muddy plain, throwing off towards the south-west the river Bimbia, which enters the Gulf of Guinea by a wide and deep mouth accessible to the largest vessels. The main stream, which retains the name of Mungo, trends eastwards, not to the sea, but to the estuary of the Cameroons River above the bar.

The Cameroons River was ascended in 1886 by Johnston for about 60 miles from its mouth to a point where it flows south-eastwards between gneiss walls, rushing over a cataract from the terraces which here seem to form the escarpments of the inland plateaux. Farther down the Wuri, as the natives call it, ramifies into two branches enclosing a large island, below which it is joined by the Abo or Yabiang, which has its source near the falls of the Mungo. Where the main stream assumes the aspect of an estuary it receives several other affluents, while the numerous channels of its delta communicate on one side with the Mungo, on the other with the Lungasi.

On the coast between the Cameroons estuary and Cape Saint John several other streams reach the sea, some of which rival in volume the Mungo and the Wuri. Most of them are interrupted near the coast by cataracts, and all are marked at their mouth by mangrove-covered or alluvial banks, which under the influence of the in-shore marine current are uniformly disposed in the direction from south to north. The Edea, northernmost of these streams, and navigable by boats for 34 miles upwards, communicates by lateral channels with the Malimba and the Kwa-Kwa (Qua-Qua), besides sending two independent branches seawards. Beyond it follows the Moanya, or "Great Water," ascended by Zoller for 24 miles to the falls, to which point it is navigable for small steamers, having a mean breadth of 160 yards, with a depth ranging from 12 to 25 feet at high water.

The Lobé, or "Great Ba-Tanga," a small stream chiefly fed by the surface waters from the Elephant Mountain during the rainy season, is famous for the

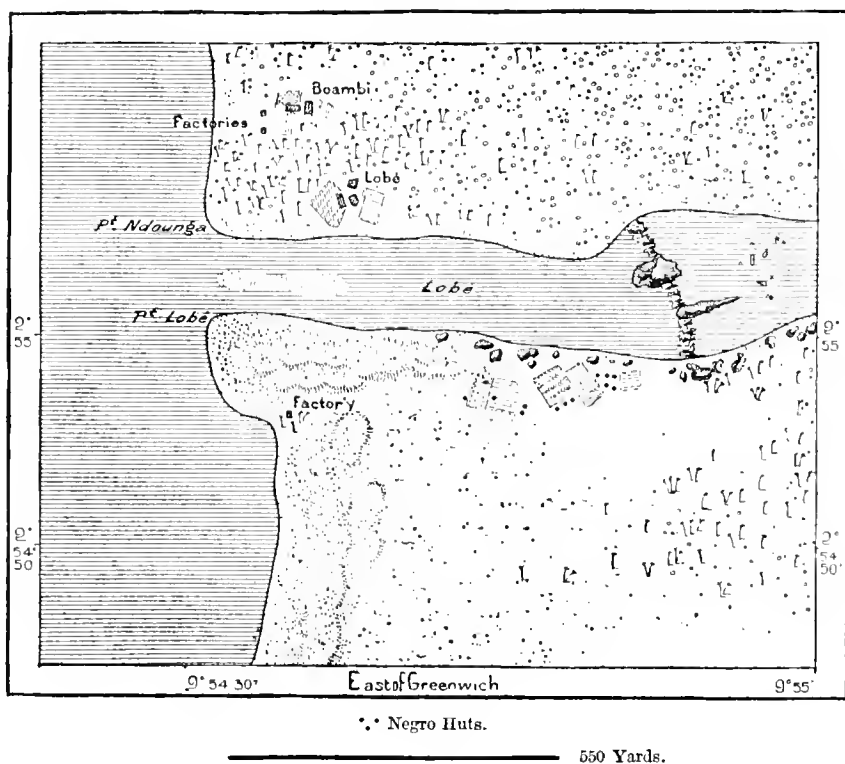
beauty of its cascade, which is visible even from the sea. At this distance it looks like a bright silver thread drawn across the current, but a nearer view reveals a broad sheet of water falling from a height of 50 feet over a rocky ledge above which rise two huge granite boulders, one crowned with a wide-branching tree and encircled by a green girdle of brushwood. Half a mile lower down the river enters the sea between two sandy banks strewn with granite rocks.

#### CLIMATE—FLORA—FAUNA.

Apart from the great mountain, which forms a little world of its own, the Cameroons climate and natural history differ but slightly from those of the Slave

Fig. 181.—THE LOBÉ FALLS.

Scale 1 : 11,000.



Coast and Lower Niger. As in the neighbouring tropical regions the summer rains, already abundant in May, continue to increase till the end of August, usually ceasing by the beginning of October. In November sudden squalls and tornadoes are frequent, and the vapours are so dense that even from the foot of the volcano the summit is visible only at dawn and sunset, except when the dry north-east harmattan prevails.

As on the Guinea coast, the spontaneous vegetation is represented by the mangrove on the half-submerged marine banks, by the pandanus and raffia palm on the lowlands, and higher up by forests of great trees matted together by a tangled

network of tall creepers. The cultivated plants are also the same—cocoa-nuts, oil-palms, wine-palms, bananas, yams, ground-nuts, sweet potatoes, manioc, and especially *colocasia*, here called coco, but which is simply the taro of the South Sea Islands.

Although still but partly explored, the Cameroons fauna is already known to be extremely diversified. On the banks of the Abo, Buchholz collected about forty species of venomous and harmless snakes, and the same naturalist has discovered in this region some new species of tortoises, cameleons, frogs, toads, and fish. Every fourth year the Cameroons and the neighbouring estuaries teem in the months of August and September with little yellowish shrimps of a hitherto unknown *thalassina* species, so closely packed that they are collected in basketfuls. These shrimps are smoked and forwarded in vast quantities to the peoples of the inland plateaux. The insect world is also very rich, butterflies sometimes producing the effect of a sort of haze in the atmosphere, while the ground sparkles with the ruby and emerald sheen of the beetles. A species of *glossina*, scarcely differing in appearance from the true tsetse, buzzes about men and beasts, but its sting is perfectly harmless and not even very painful. It is remarkable that the spider family is represented by but few species in a region where they might find such abundant prey.

The large mammals are gradually retiring from the coastlands, although apes still abound in the forest, but the chimpanzees and gorillas, spoken of by the missionaries have not yet been seen. The elephant still lingers about the seaboard, but his true domain lies some 60 miles inland in the Mungo basin, where numerous herds are still met. The ivory, however, of the Cameroons elephants is somewhat coarse-grained and of a dull brown colour. In certain circumstances these huge tusks are said to be shed, like the deer's antlers, and traders pretend to be able to recognise by their texture whether they belong to a healthy or diseased animal.

#### INHABITANTS.

Nearly all the natives of the territory claimed by Germany are classed by ethnologists amongst the Bantu Negroes, that is, the great South African family of which the Zulu Kafirs are typical representatives. Some tribes, however, occupying a part of the district along the left bank of the Memé, chief tributary of the Rio del Rey, are related to those of Old Calabar, and like them speak the Efik language. With the exception of these tribes, numbering about twenty thousand souls, all the rest, as far as is at present known, are of Bantu speech, although a community of language by no means necessarily implies common descent. From the Niger delta to the Cameroons and Monyá estuaries, the transitions are almost imperceptible in the physical appearance of the natives, who everywhere present nearly the same complexion and general outward features.

In the Cameroons territory the chief Bantu tribes, as they may be collectively called, are the Ba-Kisk, that is, people of Kisk on the left bank of the Memé.

the Ba-Farami at the foot and in the valleys of the mountain range named from them; the Ba-Kundu in the plains stretching north of the Cameroons Mountain; the Ba-Mbuku on the western slope of the same mountain; the Ba-Long and Mufundu in the Mungo basin; the Dwallas, Abos, Wuris, and Budumans of the Cameroons River, and farther south the Bassas, Ba-Kokos, Ba-Nokos, Ba-Pukos, and Ibeas. Several of these tribes are at constant war with each other, and through mutual fear some remain separated by uninhabited borderlands.

In the western districts the best-known nation are the Ba-Kwiri, who have settlements about the Victoria and Bimbia factories, and whose territory has to be traversed to reach the mountain. Traditionally they came from the east, and are noted for the great disparity between the size and complexion of the sexes, most of the women being remarkably short and of lighter colour than the men. The "Brushmen," for such is the meaning of the tribal name, are grouped in about sixty separate clans of brave warriors and daring hunters. They are lively and intelligent, displaying singular oratorical power in the popular assemblies, in which all married men take part, and which are presided over by a responsible "king." At the evening gatherings they sing impromptu songs, and give proof of considerable musical talent. Paternal and filial love are sometimes carried to excess, cases being mentioned of madness or suicide through grief at the loss of a child. The feeling of solidarity is even extended from the family group to the whole community, the hunter freely sharing the produce of the chase with all his neighbours, the brandy-bottle earned by a workman quickly going the round of his friends.

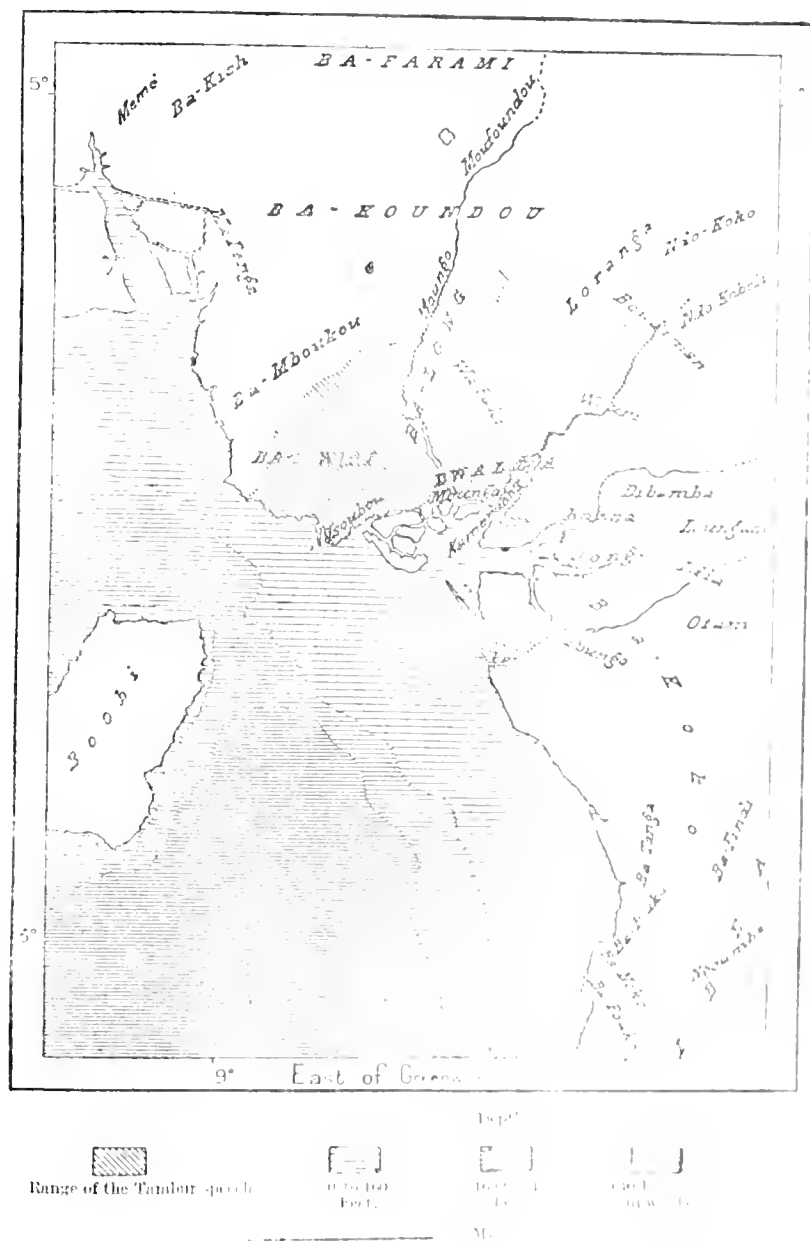
Before the German occupation the law of blood for blood was enforced even in the case of accidental homicide, and sorcery carried off more victims than the vendetta. Charges of witchcraft were so frequent that whole villages had to be abandoned, and the Islo of Ambas, in the inlet of the same name, near Victoria, was almost depopulated, most of the inhabitants having poisoned each other off with their everlasting ordeals, and the few survivors dreading the very air they breathed. Each Mo-Kwiri had his life regulated beforehand by the tribal code of magic. No chief could approach the sea under pain of death; no woman dared eat an egg or a chicken, and in many places to touch mutton except on feast-days was a capital offence. Religion is a mere system of ancestry worship. At a king's death tradition requires the sacrifice of a captive, whose body was formerly shared, like the funeral baked meats, between the dead and the living. Good and evil spirits rule over the earth, those of the forests and the sea being held in special awe. For the Cameroon highlanders, the "Seat of the Gods" is itself a god, "half stone, half man," who wraps himself in a white snowy mantle whenever any serious event is pending over his subjects.

The Ba-Kundus of the northern slopes far excel the Ba-Kwiri in the industrial arts, although apparently not their superiors in natural intelligence. Their dwellings are not mere hovels of branches and reeds, like those of the coast villages, but real stone houses, properly cemented, and sometimes even decorated with rude frescoes representing men and animals. The "palaces" of the kings

are also embellished with carved fetishes; but the talent of the Ba-Kundu artists is displayed especially in the ornamentation of the "palaver houses," which,

Fig. 182.—TRIETS OF THE CAMEROONS.

Scale 1 : 2,000,000



however, also serve as shambles. The warrior who has slain his foe, the woman who has given birth to a son, paint themselves in red to manifest their rejoicing to the eyes of all. The chief occupation of the people is the weaving of rags and

cordage, with which they enclose extensive spaces in the forests to entrap the game driven in by the beaters.

The plantations of the Ba-Kundus are cultivated as carefully as the finest European gardens by their slaves, nearly all imported from beyond the Ba-Farami mountains. These slaves, generally taller, stronger, and braver than their masters, and their equals in intelligence, are serfs in little more than the name, living in separate villages, and sometimes even forming autonomous republics with their local chiefs and general assemblies. Their communal independence is complete, and according to the missionary Richardson, who resided many years in the country, the political supremacy threatens to pass from the nominal rulers to the nominal slaves.

The authority of the fetishmen is scarcely less extensive than amongst the Ba-Kwiri. A young man who had committed the crime of eating a chicken at the missionary's table, was himself eaten by his fellow tribesmen. The sight of an owl forebodes great danger; the ghosts, especially of enemies, are much dreaded, and to them are evidently attributed the tastes of vampires, for at the death of a Mo-Kundu two graves are dug, one in his cabin, the other in the forest, in order to puzzle the spirits and prevent them from knowing where the body has been deposited; but this precaution not being deemed perhaps quite sufficient, after a certain time it is again disinterred, and removed to a distant cave.

East of the Ba-Kundus dwell the Ba-Longs and Abos, the former in the Mungo, the latter in the Yabiang basin, both keen traders and active boatmen. But amongst the Ba-Longs all the profits go to the community, and the communistic idea is carried so far that some of the houses are large enough to contain a whole village of five hundred persons. Smaller groups of not less than ten families reside together in a vast hall, while the Abos, on the contrary, live quite apart, each family in its own cabin, often completely isolated or perched on some artificial mound, and surrounded by a ditch as a protection against the periodical floods.

Of all the Cameroons peoples the best known are the Dwallas, whose settlements on the chief estuary have long been in direct commercial relation with the English and Germans. Although as dark as their neighbours, the Dwallas, who number perhaps twenty eight thousand altogether, approach nearest to the European or Semitic type. The women cover their bodies with intricate tattoo designs, the men contenting themselves with a few simple geometrical figures on the face, or even dispensing entirely with such marks. Physically they are a fine race, whose well-developed calves upset the theory of certain writers, who regard this anatomical feature as an essential characteristic of the western Aryans. The Dwallas are very proud of their pure blood, and until recently were accustomed to kill all half-castes, looking on them as monsters, whose complexion reflected dishonour on the tribe. But the women are held in as low esteem as in any part of the continent, being regarded as mere chattels, possessing no personal rights, and a few years after birth sold to their future masters.

Like the Ba-Kwiri and some other neighbouring tribes, the Dwallas use the



tam-tam or drum not merely for warlike or festive purposes, but for the transmission of detailed news. This curious telephonic system, quite as ingenious as the discovery of pictorial writing, consists in a rapid beating of the instrument with varied strength and tone, so combined as to represent either syllables or distinct words. It is a true language, which adepts reproduce by the medium of the lips, but which cannot be understood until the ear learns by practice to distinguish the sounds. The Ba-Kwiri also speak it by means of a kind of horn, whose notes resound from hill to hill. All the initiated on hearing the tam-taming are bound immediately to repeat it, so that intelligence is thus rapidly transmitted to the extremities of the land, like the ripples produced on the surface of a lake by the fall of a stone. Slaves are not allowed to learn this drum language, which very few women have mastered, and the secret of which has never yet been revealed to any European.

Anthropophagy as a religious rite survived till recently. On great occasions the body of a man was quartered, each of the four chief headmen receiving a share. All accession to power was preceded by a sacrifice, the king having no right to exercise his functions until his hands were stained with blood. The royal power is more firmly established among the Dwallas than elsewhere in the Cameroons. The kings have grown rich with trade, and one of them is certainly one of the wealthiest men in Africa, a sort of millionaire in the European sense. Their large profits are derived from their position as middlemen for all the transit trade between the interior and the factories on the coast. Hence their alarm at the efforts of the whites to penetrate inland, and commercial jealousy was certainly a chief cause of the resistance opposed to the exploration of this part of the continent. Travellers who had crossed the zone of the coastlands found themselves suddenly arrested by a thousand unexpected obstacles; the guides refused to accompany them, the porters bolted to the bush or threw down their loads midway; perhaps also on certain occasions the exploring zeal of the whites has been cooled by a dose of poison. But all serious resistance has now been overcome, and since the German occupation regular trade routes have been opened into the Adamawa hinterland.

As in the Niger basin, the staples of export are palm-oil and nuts. Ivory and some dyewoods are exported, besides caoutchouc, extracted by the Swedish settlers on the Cameroons mountains from *Caeculophia florida*, a species of creeper from 100 to 200 feet long. Ebony and a little coffee complete the cargoes taken in exchange for spirits (here generally called rum), tobacco, textile fabrics, pearls, arms, and furniture, spirits representing two-thirds of the total value.

Except the Swedish settlers on the mountains, there are no European colonists in the Cameroons, and in 1898 the whites, chiefly officials and traders, numbered altogether only 253. Several of the factories are even managed by blacks or men of colour, who show such aptitude for trade that it may be asked whether they may not ultimately acquire a complete monopoly of the local traffic.

## TOPOGRAPHY.

Towards the north-west frontier the first station is the fishing village of *Bibundi*, which serves as the outport of *Bomana*, lying 10 miles inland. The German traders propose to make it the depôt for the produce of the Upper Oyono, at present forwarded to the English factories at New Calabar.

*Victoria*, the chief station in the Cameroons, was founded in 1858 by some Baptist missionaries who had been expelled from Fernando-Po by an intolerant Spanish governor. The whole district was acquired by them for a few casks of salt meat and biscuits, and one of the most picturesque sites in the world selected for the station, at the foot of the forest-clad mountain and on the shores of an island-studded inlet. The two verdant islands of *Ambas* (*Ambozes*, *Amboise*) and *Mondoli* stand out against the hazy background of Fernando-Po with its cloud-capped cone, while the beach, fringed with dense vegetation, stretches away to the south and west.

Victoria offers some advantages as a naval station, the roadstead north of the islands being accessible to vessels of average draught, which may here procure a supply of pure water from a copious stream descending from the mountain. The deep inlet of Man-of-War Bay, penetrating far inland, might also be easily connected with Victoria by a short road, perhaps even by a canal cut across the intervening muddy neck of the peninsula. At present almost the only inhabitants of Victoria are some Ba-Kwiri and fugitives threatened with the vendetta or the vengeance of the fetishmen. Owing to the political changes, the English Baptist missionaries have been compelled to sell their establishment and their proprietary rights over the neighbouring lands. The German Government has introduced in their place missionaries from Basle, charged to instruct the natives in the German tongue and teach them to obey their new masters.

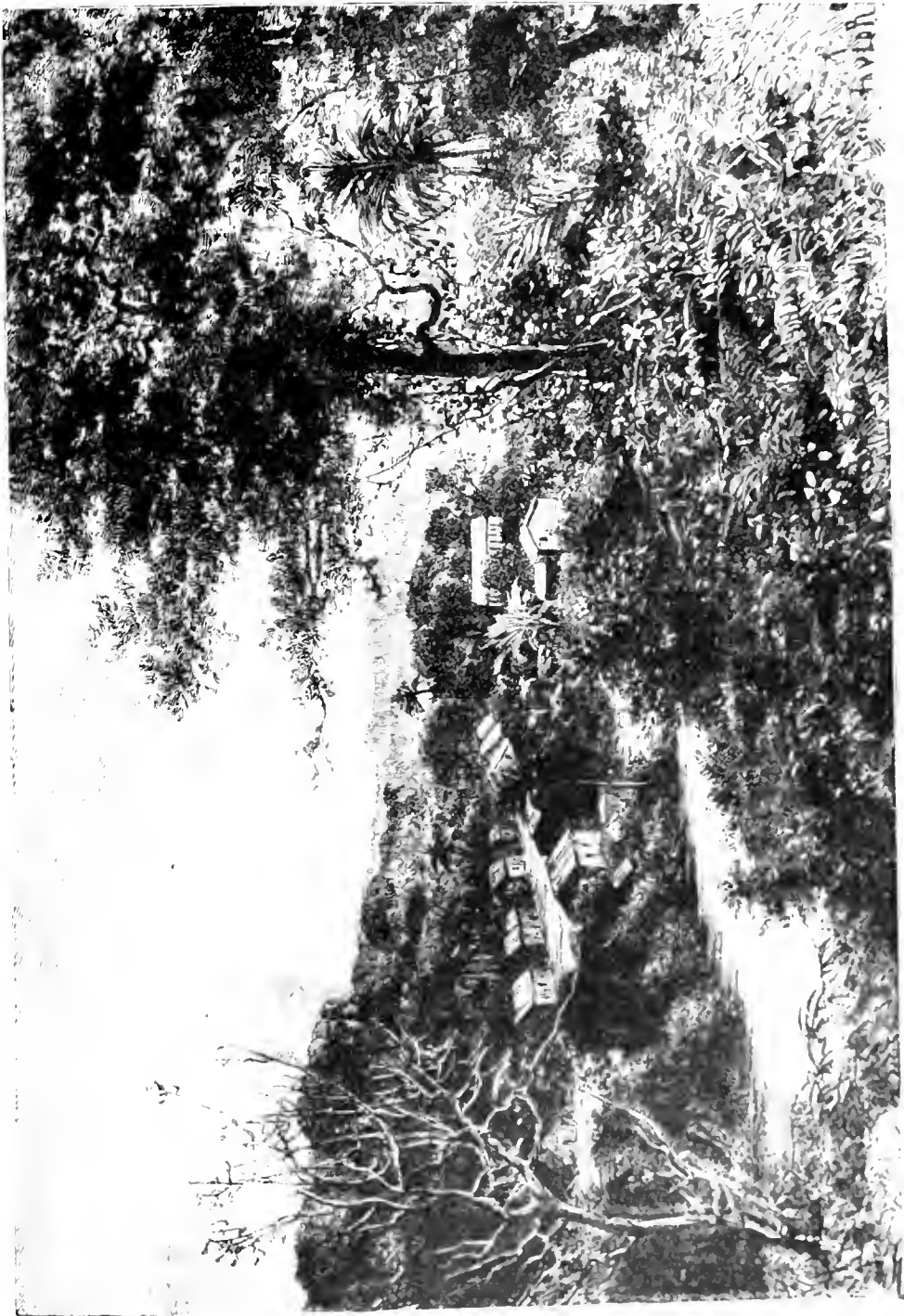
East of the wooded headland at the southern extremity of the great mountain lies the haven of *Bimbia*, partly sheltered from the surf by Nichols Island. But the approach is tortuous and difficult, and during the rainy season the billows break furiously on the bar. The bay is lined by three villages forming an almost continuous row of houses inhabited chiefly by fishermen. Bimbia is the natural outport for the large Ba-Kwiri villages *Sopo*, *Lissoku*, *Bwassa*, *Bucca* or *Bea*, scattered over the surrounding slopes.

In the Mungo basin the port and chief market near the large village of Mbinga communicates with Mbianga by a deep channel offering excellent anchorage to large vessels. Farther on lies *Bakundu-ba-Nambele*, an American missionary station in the Ba-Kundu territory. *Kumba*, much farther inland, appears to be a great market for slaves and palm-oil, with a population, according to Schwarz, of nearly four thousand.

The name *Cameroons* is applied collectively to about a dozen villages with a joint population of ten thousand on the east side of the Cameroons estuary, some of which are separately known as *King Bill's Town*, *King Akwa's Town*, from the names of the local "kings." They are reached by vessels of average tonnage,

those of larger size stopping at the entrance of the roadstead. A few hulks are

Fig. 183.—VICTORIA.



also moored opposite the factories, although most of the trading now is done



Elephant Mountain, and the Ba-Nokos in the Criby district and farther south to the mouth of the Rio del Campo. The long-standing blood-feud between these two tribes was recently brought to an end by the intervention of the European traders. This group of tribes are the most skilful boat-builders in the whole of Africa. They launch on the Moanya large war galleys impelled by about sixteen rowers, with a speed unrivalled by any European craft. Amongst the Southern or Great Ba-Tongas these boats have been replaced by skiffs of amazingly light build, about 7 feet long, 12 inches broad, 6 inches deep, weighing but from 10 to 20 pounds, with which they skim over the crests of the waves, fearlessly crossing the dangerous surf-beaten bars which Europeans scarcely venture to approach in open boats.

The factories in the Great Ba-Tanga territory are at present the most important depôts for the ivory trade, brought from the interior by the Heas (Ma-Bea), or "Brush People," who speak a very different idiom from that of the coast tribes. Like the Fans farther south, these Heas are constantly moving seawards, and have already reached the coast at two points north and south of the Lobe River.

By the Franco-German Agreement of March, 1894, the frontier line between the Cameroons and the French possessions in equatorial Africa runs from the Rio del Campo to the Ngoko river, which is followed as far as 2° N. lat. Beyond this point it is indicated by a conventional line drawn straight to the Sanga river, with which it coincides for a distance of 18 miles, and then runs to a point near Bania, in 4° N. lat., and along the 15th degree of east longitude to 8° 30' N. lat., and thence westwards across the Mayo Kelbi as far as 10° N. lat. This parallel is then followed to the Shari, the lower course of which river now forms the frontier northwards to Lake Chad. This irregular boundary line, which, however, may easily be followed on the map, is of great importance for the future political and commercial relations of the rival Powers in the interior of the continent. It completes the portion of Lake Chad, where converge the British, German, and French hinterlands, but leaves by far the largest share of this basin to France.





## CHAPTER X.

### THE GABOON AND OGOWAY BASINS.

#### SPANISH, FRENCH, AND PORTUGUESE POSSESSIONS.



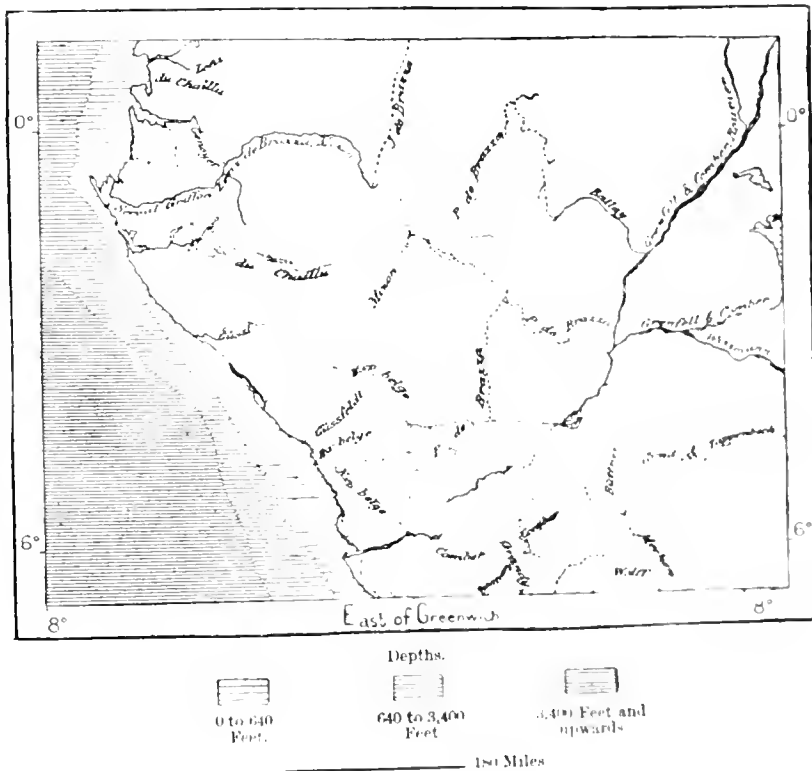
BEFORE the year 1884 most of the seaboard stretching for about 900 miles between the mouths of the Rio del Campo and Congo had been left to its native inhabitants, the European Powers confining themselves to a few points on the coast, such as Coriseo, Libreville, and Kabinda. At present there is scarcely a desert strand or a single mangrove thicket that is not claimed as an integral part of some political domain, and fanciful frontiers have even been traced across remote, unexplored, or at least little-known regions of the interior. Were priority of discovery the only title to possession, the rights of Portugal could not be questioned, for the Lusitanian mariners had already crossed the line in 1470, and many of the headlands and inlets along the seaboard still bear Portuguese names. Thus the most advanced promontory, Cape Lopez, recalls the navigator Lopo Gonçalves, while the neighbouring estuary of Fernão Vaz is named from another sailor of the same nationality. It is also certain that the Portuguese formed permanent settlements at several points along the coast, and the remains have even been discovered of buildings and of rusty guns in the island of Coniquet (Koniké), towards the centre of the Gaboon estuary. But for over three hundred and fifty years after the first discoveries, European commercial relations were mainly confined to the slave trade, those engaged in this nefarious business maintaining a studied silence, and screening from the eyes of the outer world the scenes of their profitable operations.

The work of exploration, properly so-called, was not seriously undertaken before the middle of the present century, after the acquisition by France of a strip of land on the north side of the Gaboon estuary as a dépôt for re-equipping her cruisers. The first station was founded in 1842, and soon after the whole estuary was surveyed, and expeditions sent to explore the Komo and Ramboé affluents. Then followed Du Chaillu's excursions to the interior, and his sensational accounts of the gorilla, the terrible "man of the woods," after which the Ogoway basin was thrown open and largely explored by Braouezec, Serval, Griffon du Bellay, Aymès, De Compiègne and Marche, Walker and Osear Lenz. The systematic

work of survey was completed by the two De Brazzas, Ballay, Mizon, Rouvier, and others, thanks to whose labours nearly the whole triangular region bounded east and south by the Congo, north by the Gaboon and the equator, is now known in its more salient features, while the numerous positions determined astronomically supply sufficient materials for detailed maps. The Spanish travellers Iradier, Montes de Oca, and Ossorio, have on their part traversed in various directions the whole region stretching north of the Gaboon as far as the Rio del Campo, and penetrated for 120 miles inland. The preliminary survey of the equatorial lands which the European powers have appropriated by diplomatic conventions, has also

Fig. 185.—CHIEF ROUTES OF EXPLORERS IN THE GABOON AND OGOWAY BASINS.

Scale 1 : 12,100,000.



now (1899) been completed by numerous exploring and even military expeditions to the Congo affluents.

To France has been assigned by far the greater part of this equatorial region, her share including the whole of the Gaboon, Ogoway and Kwilu basins, besides those of the Congo affluents as far as the U-Banghi. Spain adds to the island of Corisco and the two islets of Elobey a small strip of territory on the mainland, while Portugal retains possession of an enclave limited north by the river Massabi, east and south by conventional straight lines separating it from the new Congo State. The area of this enclave may be roughly estimated at 1,000 square miles, with a population of at least thirty thousand; but the extent of the

French and Spanish territories can be measured only by the degrees of latitude and longitude. Broadly speaking, "Equatorial France" may be said to have an area of about 240,000 square miles, while the territory claimed by Spain varies from 10,000 to a very few square miles, according to the different national and foreign estimates. As far as can be judged from the conflicting statements of travellers the total population cannot be less than two millions, while according to De Brazza it is more probably five millions, including the lands draining the Congo.

#### PHYSICAL FEATURES.

In the whole of this region between the sea and the Congo there are no lofty ranges, the highest summits falling below 5,000 feet, while very few exceed 3,500 feet. In the north the most conspicuous eminence is Mount Batta, rising like a tower above the neighbouring hills. Eastwards from this point stretch the parallel Siete Sierras, or "Seven Ridges," of the Spaniards, merging southwards in the range formerly known as the Sierra do Crystal, or "Crystal Mountains," with peaks said to exceed 4,600 feet. South of the Ogoway the culminating point, Mount Igumbi Ndele, in the Sette Kama basin, appears to be not much more than 3,500 feet high, while the hills about the Upper Kwilu rise little above 1,000 feet. Altogether the relief of the land presents a great uniformity, a series of ridges parallel with the coast following from west to east in the form of terraces skirted by chains of hills.

The central terrace consists of gneiss flanked on the east by quartz, talcky and micaceous schists and elevated sandy plains as level as a lake. Westwards stretch chalk and Jurassic strata advancing with a few interruptions towards the coast, and in many places covered with laterite. Old lavas also occur overlying the terraces, and the early travellers even spoke of "burning mountains," such as the Onyiko and Otombi in the northern part of the Ogoway valley about 120 miles from the sea. But although recent exploration has shown that these "fetish mountains" are not volcanoes, there can be no doubt that great geological changes have taken place in this part of the continent, the very form of the coast attesting a considerable modification in the relative level of land and sea. The curve of the shore-line, tolerably regular north of Cape St. John and developed with almost geometrical symmetry south of Cape Lopez, is broken between these two points by the three deep inlets of Corisco Bay, the Gaboon estuary, and Nazareth Bay. Corisco island is itself a mere fragment of the old seaboard, while the numerous stagnant waters south of Cape Lopez represent old river beds that have shifted their channels. Possibly the great riverain lagoon of Banya may be nothing more than the remains of a former mouth of the Congo.

#### RIVERS.

Thanks to the copious rainfall, the region comprised between the Cameroons and the Congo is intersected by a large number of closely ramifying streams.

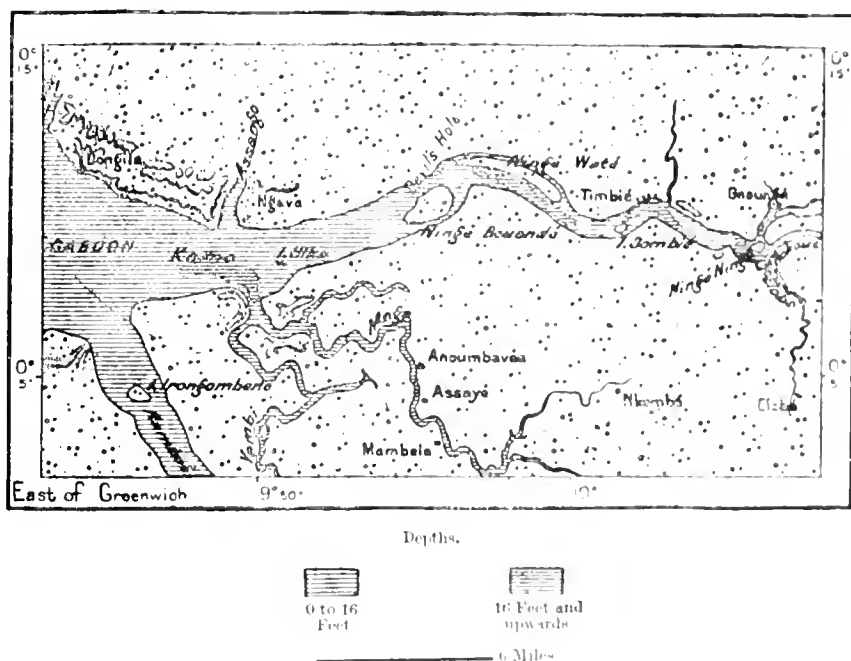


The Etembwe, or Río del Campo, southern limit of the German possessions, is followed by the Eyo, or San-Benito, which reaches the coast 36 miles north of Cape St. John, and which is navigable for 20 miles to the Yohé falls. The Muni (Angra, or Danger), which enters Corisco Bay opposite the Elobey Islands, is also obstructed by formidable cataracts during its passage through the red sandstone escarpments of the coast ranges.

South of the Muni the narrow island-studded inlet bounded on the west by the Cape Esteiros peninsula has received the name of Río Munda, as if it were a river, being in reality a mere estuary into which are discharged a few feeble coast-streams. The same description applies to the Gaboon itself, which also received the name of *rio* from the early navigators, and which till within the last few

FIG. 186.—CONFLUENCE OF THE KOMO AND RAMBOË.

Scale 1 : 450,000.



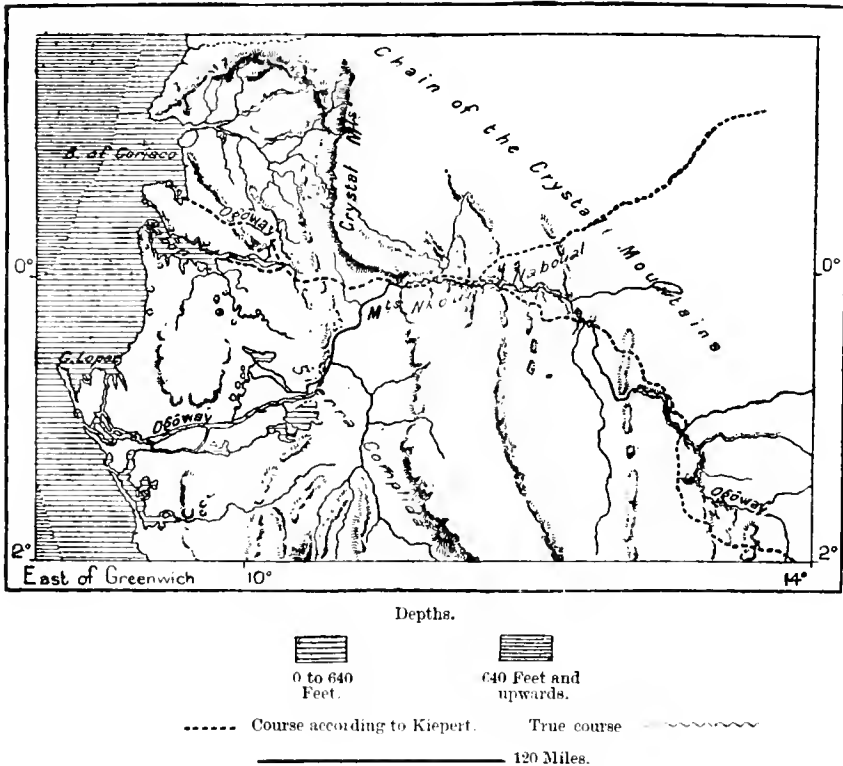
decades was still regarded as one of the great continental rivers, whose sources were sought in the great lakes of the interior. But the Gaboon, so called by the Portuguese from its fancied resemblance to a gabao, or "cabin," penetrates inland little more than 40 miles. In its general outlines, size, and hydrographic system it recalls in a striking way the French estuary of the Gironde, although somewhat broader and with a greater average depth. Like that of the Gironde, the entrance is obstructed with sandbanks, which have had to be carefully buoyed, marking off four deep channels with 26 to 33 feet of water at ebb tide. In its upper reaches the estuary is accessible to vessels drawing 13 or 14 feet, and its two affluents, the Komo and Ramboë, as well as several of their tributaries, are

also navigable by small craft. Of the two the Komo is the larger, rising like the Muni in the upland valleys of the Crystal Range.

Some 60 miles south-west of the Gaboon estuary, the sea is reached by the Ogoway, largest of all the rivers between the Niger and Congo, and like the Gaboon at first supposed to be also one of the great continental watercourses. Even after Livingstone's discovery of the Lua-Laba, by him wrongly supposed to be the Upper Nile, many geographers fancied that this emissary of the great Cazembe lakes might trend westwards to the Ogoway, and it was this theory that gave occasion to the expeditions of Oscar Lenz and of other explorers in this

Fig. 187.—SUPPOSED COURSE OF THE OGOWAY BEFORE THE LATE DISCOVERIES.

Scale 1 : 6,000,000.



region. But although occupying a much humbler position than had been supposed, the Ogoway still sends down a greater volume than either the Rhine or the Rhone, or any other river in the west of Europe. At the same time the estimates of 1,580,000 or 1,760,000 cubic feet per second during the floods are probably exaggerated; and allowing even that four-fifths of the rain falling within its basin of 120,000 square miles ultimately reaches the sea, the mean discharge cannot greatly exceed 350,000 cubic feet per second.

The farthest headstreams of the Ogoway, which has a total course of about 720 miles, rise in the Ba-Teke territory, within 120 miles west of the Congo. After its junction with the Passa, the main stream, already navigable for boats, at



VIEW OF THE STONES OF SAMLA, ON THE ROADWAY



least in the rainy season, meanders first westwards, then to the north, interrupted so frequently by rocky obstructions that the whole of its middle course may be described as a continuous rapid. At the Dumé falls it trends abruptly westwards, beyond which it is again deflected towards the equator, which it follows in a somewhat westerly direction, as if to fall into the Gaboon estuary. Here it is joined above the Bowe falls by the Ivindo, a large stream which is supposed to have its source in the neighbourhood of the U-Banghi. From this point the Ogoway rolls down a great body of water, but the current is constantly impeded by rocky barriers, "fetish stones," as they are called, which the boatman in passing hopes to propitiate by sprinkling them with a few drops of water from his paddle.

From the station of Njole, below the last rapids, the lower course flows for 200 miles to Nazareth Bay, at some points narrowing to 500 or 600 yards, but elsewhere expanding to a breadth of nearly 2 miles. The current is dotted with numerous islands, some consolidated by the roots of trees, others mere sandbanks, or else floating masses of vegetable refuse, arrested by the tall sedge growing on the bottom. Even at low water, gunboats drawing 3 or 4 feet may ascend for over 180 miles from the sea, although till recently no whites were allowed to pass "Fetish Point," at the confluence of the Ngunie. This great affluent from the south is itself navigable for 60 miles to the Samba falls, which rise scarcely 1 foot above high-water level.

Below the Ngunie junction, the Ogoway ramifies like the Senegal into lateral channels, which receive the overflow during the periodical inundations, when they expand into vast lacustrine or swampy reservoirs, dotted over with islands. Such is the great *elira* (*liba*), or "lake," usually known by the name of Zonengway, famous for its holy island, residence of a powerful fetishman. This lagoon, about 40 feet at its deepest point, covers a space of at least 200 square miles, and communicates with the river through three navigable channels, two influents from, one an emissary to, the Ogoway. Farther west, but still on the same south side, occurs the Anenghe (lonenga, Onangwe), a basin of similar formation, while on the north side a branch of the main stream is skirted by the Azingo and some other lateral depressions, also large enough to deserve the name of lake.

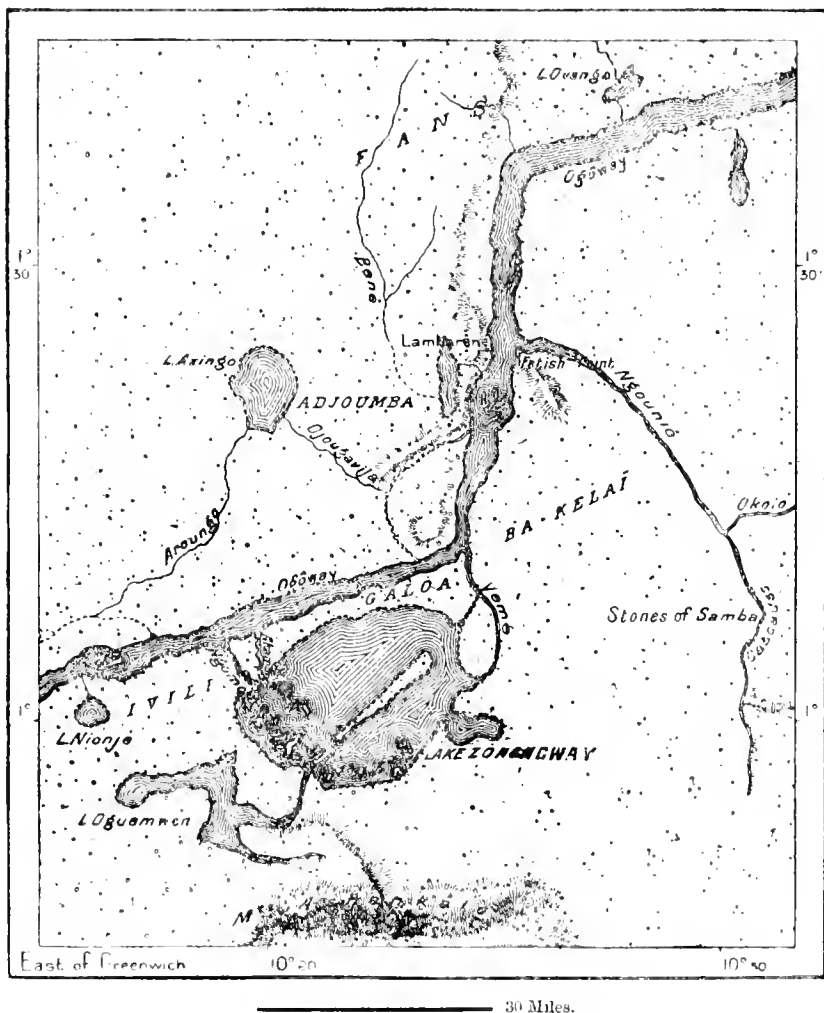
The delta properly so called, beginning at the Anenghe lagoon, comprises between the two chief branches, the Lower Ogoway in the north and the Wango in the south, an area of about 1,900 square miles, including the island of Cape Lopez, which projects far seawards. This region is intersected in all directions by shifting channels and backwaters accessible during the floods from at least three points—Nazareth Bay in the north, 20 to 30 feet deep, the Fernao Vaz channel in the south, and between the two, Cape Lopez Bay. The delta is continued southwards by the extensive Nkomi lagoon, ramifying into a thousand creeks and fed from the north by the Wango branch of the Ogoway, from the south by the rembo ("river") Obenga flowing from the hills to the south of Lake Zonengway.

Other lagoons continue south-eastwards this half-submerged region, beyond which the Nyanga, escaping through the gorges of the coast range, falls into the

sea below the Sette Cama estuary. But between the Ogoway and the Congo the most important stream is the Kwilu (Nguella), which higher up is known as the Niadi or Niari, with a total course of about 360 miles. Like the Ogoway, the Kwilu describes a great bend northwards, and after its junction with the Lilli and with an emissary from the Nyanga, it pierces the region of schistose hills through

Fig. 188.—THE OGOWAY AND ZONENGWAY.

Scale 1 : 925,000



a series of abrupt defiles. It is navigable by gunboats for 36 miles from its mouth to a "gate" of vertical rocks rising 100 feet above the stream, and supposed by the natives to be kept open by a powerful fetish, who, however, may close the passage at any moment. Higher up follow still more formidable gorges, in one of which the river, from 1,000 to over 2,000 feet broad on the plains, is contracted to a narrow channel 20 feet wide. The Kwilu, which in some respects offers greater

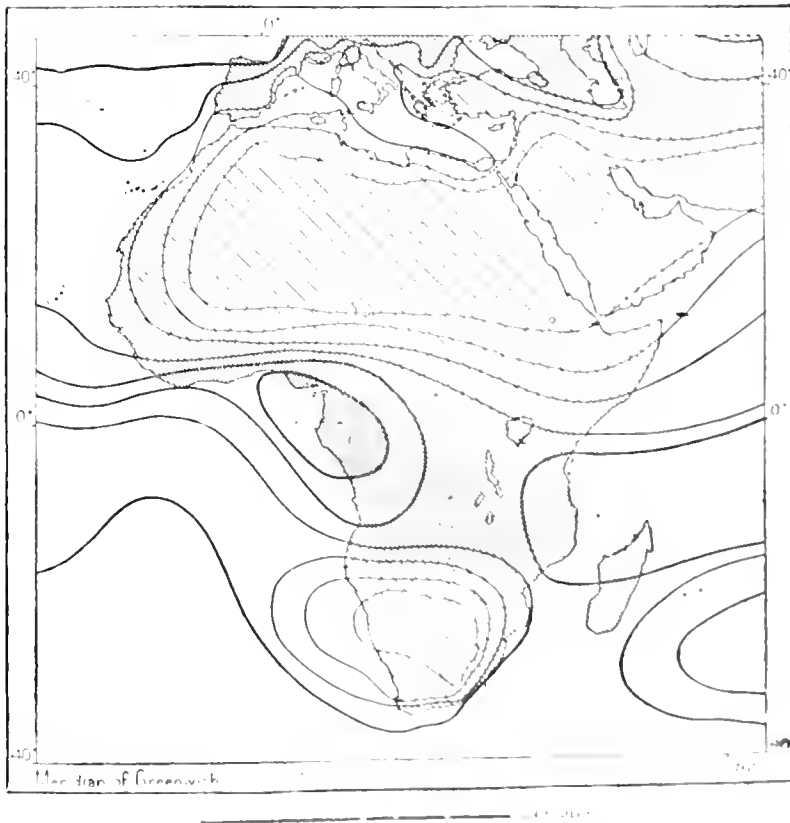
facilities for penetrating inland than the Ogoway, leads to a region within 60 miles of the Congo, which is reported to abound in copper and lead deposits.

#### CLIMATE.

The broad features of the climate are revealed by the periodical rise and fall of the fluvial waters. Thus the Ogoway continues to rise from September to the middle of December, and then falls to the end of January, indicating the season of

Fig. 189.—LINES OF EQUAL CLOUDINESS IN AFRICA.

Scale 1 : 100,000,000.



the winter rains followed by a short interval of fine weather. Then follow the great rains, when the river again begins to rise, usually attaining its maximum about the first week in May, and again regularly subsiding till September. The rainfall gradually diminishes southwards from the Rio del Campo to Cape Lopez, and thence to the Portuguese territory, falling from about 120 inches north of the Gaboon to 100 about the equator, but varying greatly on the Leão coast, where it fell from 63 inches in 1875 to no more than 16 in 1877. The quantity of moisture precipitated corresponds generally to the frequency and density of the

nebulosity, and M. Teisserenc de Bort's chart indicating the lines of equal cloudiness for the whole continent, shows that fogs and mists occur most frequently in the Gaboon and Ogoway basins.

In the same region the annual temperature has an extreme range of about 45° F., falling from 100° to 57° at Shinshosho in 6° 9' south and from 93° to 62° at Sibanghe in 0° 30' north of the equator. During the hottest days in March and April the glass oscillates between 78° and 93° F., and in the relatively cool months of July and August between 73° and 86° F. Hence on this part of the seaboard what is most to be dreaded is not so much the actual heat as the great quantity of moisture contained in the atmosphere. The land and sea breezes alternate with great regularity, the former usually prevailing from eleven or twelve o'clock at night till the first hours in the morning, the latter from about eleven o'clock in the forenoon till the evening. Tornadoes occur chiefly during the early rainy season, and nearly always at night. But they are little dreaded, and by the Europeans of Libreville are even hailed with rejoicings, owing to their cooling effect on the atmosphere. The insalubrity of the climate is greatly increased for the whites by the poisonous exhalations rising from the morasses, the Ogoway, thanks to the sandy nature of its bed, being in this respect considered less dangerous than the Gaboon. But all Europeans alike are everywhere subject to fever and ulcers in the legs, the two maladies sometimes alternating.

#### FLORA AND FAUNA.

The flora is neither so rich nor so varied as might be expected in such an abundantly watered equatorial region. Vast treeless tracts occur in some parts of the territory, the absence of arboreal vegetation being largely due to the sandy character of the soil. In the Gaboon gigantic draconas overtop all the surrounding trees, amongst which are several kinds of palms flourishing spontaneously. The cocoa-nut and all other industrial plants of the torrid zone have been introduced by the missionaries, but mostly without any practical results. On the other hand, the forest species which contributed to the export trade during the early period of the occupation have lost their relative value, their products having to be brought from greater distances inland since the exhaustion of the supply from the woodlands on the coast. Thus traders no longer take the trouble to export the "red" wood (*Baphia nitida*) formerly so highly prized, and some varieties of which were even preferred to those of Brazil by dyers. Ebony (*Diospyros*), both green and black, is still collected by the natives, as well as caoutchouc, although the liana yielding this commodity is disappearing from the neighbourhood of the stations. In general the indigenous flora is poor in edible plants, although the Okotas of the Ogoway basin live almost exclusively on the large green fruit of the *dika*, which abounds in their forests.

This equatorial region has become famous for its quadrumana of large size, including the njina (jina) of the natives, to which Europeans have given the name of "gorilla," originally applied by Hanno and his Carthaginian companions to certain hairy women seen by them on the west coast of Africa. The domain of



this formidable anthropoid ape extends from the San-Benito to the Loango; on the upper Ogoway he is very rare, and nowhere met in the Congo basin, although according to some authorities he is found in the Niam-Niam country. He was known only by vague reports before 1847, when the American missionary Savage discovered a skull of this animal in the Gaboon. Some ten years afterwards Du Chaillu met and hunted the terrible apes in their native forests, although his descriptions of their strength and ferocity were certainly exaggerated. From later accounts the gorilla appears to be rather a timid animal, easily tamed if taken young, and about 5 feet high, although one seen by M. Ponel, near Bowé, had a height of no less than 5 feet 9 inches, which is above that of the average European. This animal has disappeared from several of the forests where he was met by the first explorers, and is no longer found in the island of Cape Lopez.

The chimpanzee, also an inhabitant of West Central Africa, occurs especially in the Ogoway and Kwilu basins, but rarely in the vicinity of human dwellings. Being also a more active climber, he is more difficult to capture than the gorilla, but domesticated with equal ease. Of the chimpanzee there are several varieties, such as the nshfego mbuve (*Troglodytes calrus*), who builds strong nests in the trees, and the kula (kulu), which of all apes appears to approach nearest to the human type. The *Colobus tholoni*, a new species of monkey, has also been discovered in the Ogoway basin.

In the western districts there are no lions, and the panthers and other felidæ seldom attack man. The elephant, said by Du Chaillu to be a distinct species, is withdrawing to the interior, so that ivory, as in the Cameroons, is becoming an object of luxury instead of regular traffic. The animals most dreaded by the natives are the buffaloes, and the white-faced wild-boar (*Potamocharus albigularis*), which leaps streams several yards wide at a bound. The hippopotamus still abounds in the rivers, and is even met in the saline estuaries about Cape Lopez. The crocodile frequents the lagoons of Loango, where he never attacks man. In the forests dwell numerous rodents, such as the Kendo, smallest of squirrels, and the Mboko (*Sciurus eborivorus*), which gnaws ivory.

Here have been found several new species of birds, reptiles, fishes, and insects. Of birds the most remarkable are the *Chrysococcyx smaragdinus*, all burnished gold with emerald tint, and the *Souimanga magnificus*, a merle of metallic lustre rivalling in beauty the Senegambian variety. The *shondo*, a fish in the Ogoway, with its horny beak excavates perfectly regular cup-shaped spaces in which its eggs are deposited. In the shallows of the island of Corisco occurs a species of proteus, and electric fish frequent the Kwilu waters. Most of the snakes appear to be venomous, and some of the ants, such as the ferocious bashikwe, are far more dreaded than the beasts of prey. According to Compiègne, spiders, almost unknown in the Cameroons, are here represented by "an incredible number of species;" but the great scourge of the country is the jigger (*Phoreticus*), imported from Brazil.

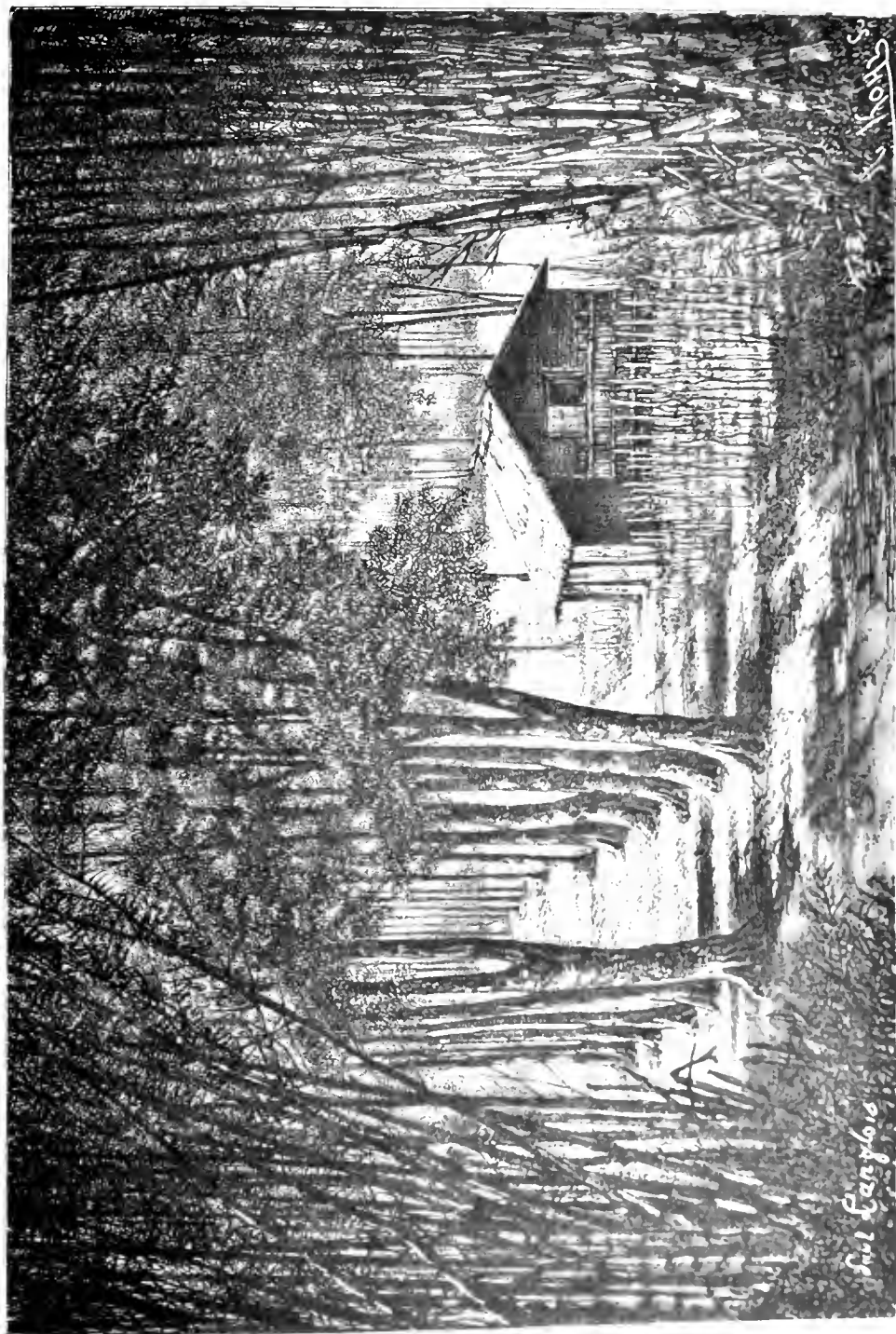
## INHABITANTS.

The inhabitants of West Equatorial Africa consist for the most part of immigrants from the east, the ceaseless tides of migration either sweeping away the aborigines, or else by intermingling with them forming fresh ethnical groups which now render all classification impossible. The best known nation are the Mpongwes (Pongos) of the Gaboon, whose Bantu language is by far the most widely diffused throughout these coastlands. It has been carefully studied by the missionaries and others, who speak with admiration of its harmonious sounds and logical structure. Thanks to the precision of the rules determining the relations of roots and affixes, all ideas may be expressed with surprising accuracy, so that it has been found possible to translate the gospels and compose several religious works without borrowing a single foreign word. The Mpongwes, who call themselves Ayogo, or "the Wise," possess a copious collection of national songs, myths, and traditions, besides which the elders are acquainted with the "Hidden Words," a sort of secret language of unknown origin. Although the transition is abrupt between Mpongwe and the eastern Bantu idioms, all clearly belong to the same linguistic stock, and fully one-fifth of the Mpongwe vocabulary reappears in the Swahili of the east coast.

The Mpongwes proper are a mere fragment of a formerly powerful nation, and are being gradually absorbed by the immigrants from the interior. Those who call themselves "Children of the Soil," and who were distinguished by their physical beauty, are slowly disappearing, carried off by small-pox, consumption, scrofulous affections, and the pernicious habit of smoking liamba, a kind of hemp like the hashish of Eastern peoples. Those grouped round the Catholic and Protestant missions call themselves Christians, and even the fetish-worshippers sell their sacred groves for ardent spirits. All are intelligent, but without perseverance, and frivolous boasters, who have to be replaced on the Government works by Kroomen or coolies from Senegambia.

The Benga (Mbenga) tribes of Corisco Island and the opposite coast speak a distinct Bantu dialect, nearly related to that of the Ba-Kale, a powerful nation who have not yet reached the coast, occupying the inland forest between the Muni and Sette Kama rivers. The Ba-Kale, whose chief tribes lie south of the Ogoway, are said to number about one hundred thousand, but are rapidly diminishing, whole clans having disappeared within a generation under the pressure of the inland peoples advancing seawards. Since the appearance of the whites in the Ogoway basin, the social usages of the Ba-Kale have been considerably modified. Formerly warriors and hunters, they are now mostly traders, packmen, and brokers, monopolising the transit traffic about the lower course of the river; their Di-Kele language, mixed with Mpongwe elements, has become the chief medium of intercourse among the riverain populations as far as the first cataracts. They have ceased to work iron and copper, and now obtain by barter all the European arms and utensils that they require.

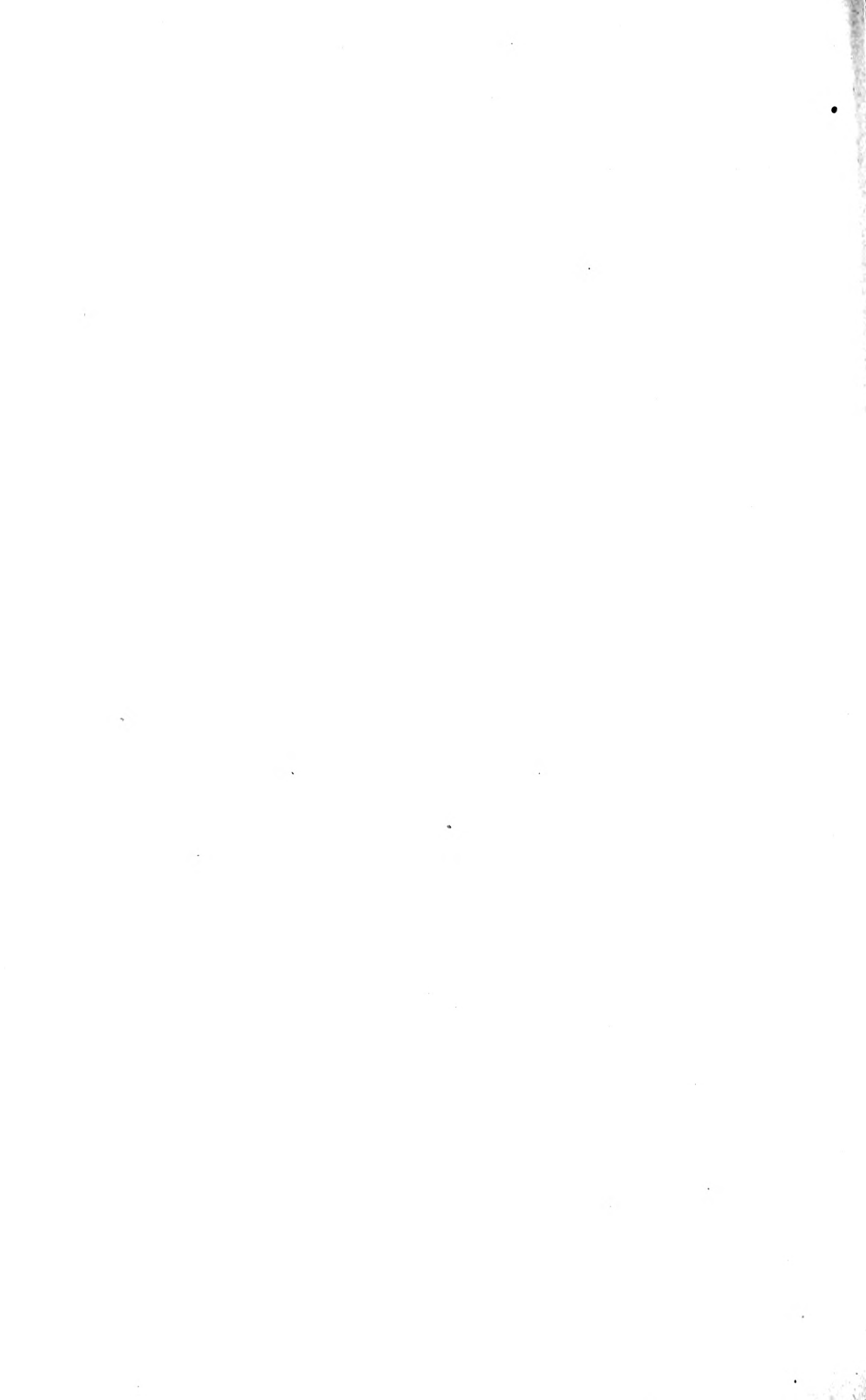
The Ba-Ngwes, who dwell some 60 miles east of the cataracts between the



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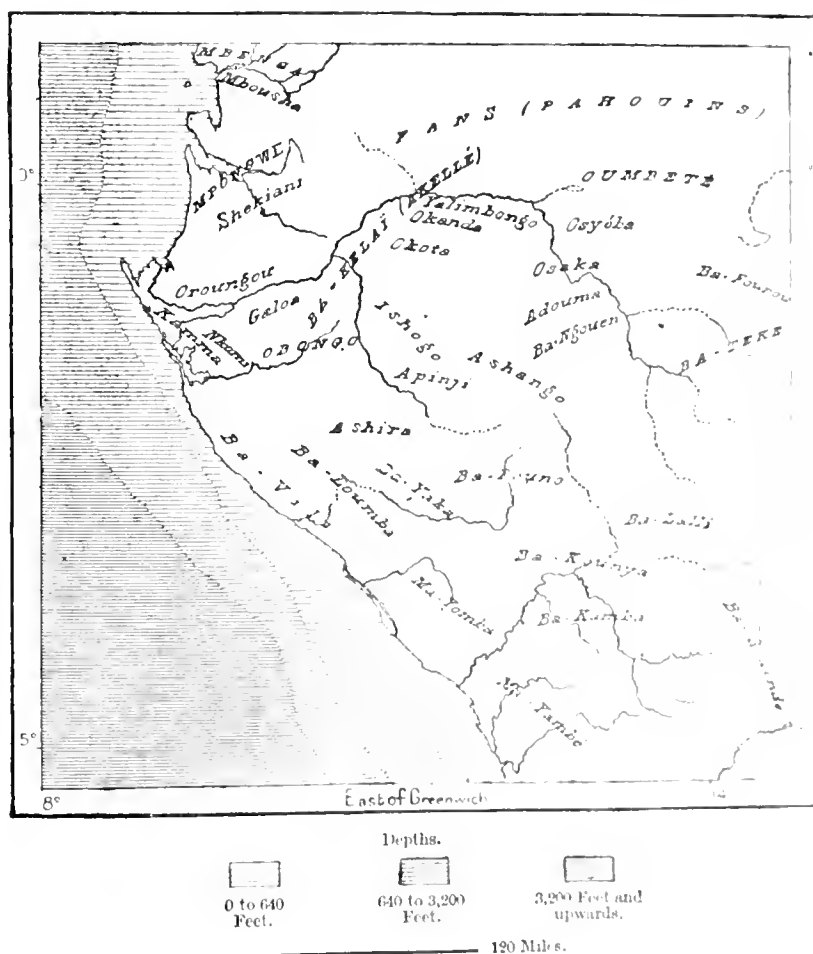
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upper and lower course of the Ogoway, appear to be the only people above the Ba-Kale territory who are allied to them in speech. All the rest, except the Fans, speak dialects akin to those of the Mpongwe and Benga ethnical groups. The Ivili of the Lower Ogoway, kinsmen of the Ba-Vili of the Upper Ngunie basin, are a mild, industrious people, who came originally from the south, and are now increasing rapidly at the expense of their neighbours. They appear to be distinct from the Mpongwes, whose language, however, they have adopted, as

Fig. 190.—INHABITANTS OF THE GAROON AND OGOWAY BASINS.

Scale 1 : 7,500,000.



have also the Ajumas of Lake Azingo. The Ba-Ngwes, who have a turn for trade, like their Ba-Kale relatives, but who are less degraded by contact with the whites, appear to be also more sedentary and conservative of the old tribal usages. The women, who are of herculean strength, are distinguished by a peculiar system of tattooing, executed in relief on the breast, and like their Okandjeng neighbours, all the Ba-Ngwes are passionately fond of salt, swallowing it by handfuls, as greedy white children do sugar.

## THE FANS.

Most of the region east of the Gaboon and north of the Ogoway is now held by the Fan intruders, who have driven towards the south-west all the other indigenous and immigrant populations. When the French first settled in the Gaboon the Fans were almost unknown, although so early as 1819 Bowditch had already mentioned them under the name of Paämways, describing them as a Fulah people. Their most advanced villages were at that time still restricted to the hilly inland

Fig. 191.—FAN WOMAN.



plateaux north of the Ogoway affluents; now they have become the immediate neighbours of the Mpongwes of Glass and Libreville on the banks of the Komo, stretching north to the confines of the Ba-Tonga territory, while south of the Gaboon their pioneers have already reached the coast at several points. The Syake Fans occupy the zone of rapids above the Ivindo; the Osyebas have crossed the middle Ogoway, and others have even penetrated to the Rembo Obenga in the delta region. Dreaded by all their neighbours, the Fans are at present a rising power,

who become undisputed masters wherever they present themselves. In the districts known to the whites their numbers are estimated at two hundred thousand, and since the middle of the century they are said to have increased threefold both by constant immigration and by the natural excess of births over the mortality. The future of French influence in this region depends mainly on the relations that may be established between the whites and these formidable invaders, all other peoples being divided into a multitude of detached groups incapable of any serious resistance.

The Fans, that is to say, "Men," are known by many other names, such as Pahuin, Pa-Mue, Mpangwe (not to be confounded with Mpongwe), Panwe, Fanwe, and within French territory they form two distinct groups, the Ma-Kima of the Upper Ogoway and the Ma-Zuna about the Gaboon, speaking different dialects and waging a deadly warfare against one another. According to some authors the Fans are sprung from those Jaggas, who in the seventeenth century overran the kingdom of Congo, and the vocabularies collected by Wilson, Lenz, and Zöller prove that their language is also of Bantu stock, more allied to the Benga than to the Mpongwe, but spoken with a very guttural pronunciation. Anthropologists now generally believe that they belong to the same family as the Niam-Niams of the Upper Welle region, from whom they are now separated by an intervening space of 900 miles, also probably inhabited by kindred populations. Both present the same general physical appearance, complexion, stature, features, and attitude; both file the incisors to a point, dress the hair in the same way, use bark coverings, and vegetable dyes for painting the body. The chiefs also wear leopard skins, and use the same iron dart—a weapon with several points that tears the flesh. Blue glass trinkets and cowries are prized as ornaments by both nations, who also breed hounds of the same species. Lastly both are decided cannibals, employing the word *nia* in the same sense of "to eat," so that the Fans would seem to be the western division of the great Niam-Niam race.

They are of lighter complexion and less woolly hair than the Ogoway coast tribes, which has caused some ethnologists to regard them as of non-Negro stock. The men, whose only occupation is fighting and hunting, are generally tall and slim, but very muscular, with haughty bearing and defiant look, very different from the obsequious downcast glance of the Gaboon Negroes. The women, who perform all the household and agricultural work, soon acquire heavy ungainly figures. But the characteristic trait of both sexes is the bulging frontal bone, forming a semicircular protuberance above the superciliary arches. The young men and women delight in personal ornaments of all sorts, adding cosmetics to tattooing, intertwining the hair with pearls, foliage, and feathers, encircling neck and waist with strings of cowries and china buttons, loading the calves with copper rings, like those in use among the natives of East Africa. Some of the women are as bedizened as any fetish, and so overladen with ornaments as to render locomotion almost impossible. But when they have to mourn the death of a chief or of a near relative they must put everything aside, and appear abroad either naked or clothed only with foliage and bedaubed with yellow or greenish ochre, which gives them a very cadaverous appearance.

The practice of cannibalism, on which the unanimous testimony of the first explorers leaves no room for doubt, appears to have been abandoned in the neighbourhood of the coast. In the interior, prisoners of war are still eaten, but the banquet partakes of a religious character, being enjoyed in a sacred hut far from the eyes of women and children, the object being to acquire the courage of the enemy by devouring him. Wizards are also said to be consumed in the same way, and on many occasions slaves would appear to be immolated and passed from village to village for solemn feasts. Among certain tribes the old alone are privileged to touch human flesh, which is fetish for all others. Thus the custom seems to be gradually falling into abeyance, the Fans being compelled, like other conquerors, to modify their usages when they come in contact with different populations and become subject to new conditions of existence. Formerly hunters, they have now mostly taken to trade, husbandry, and fluvial navigation.

Of all the Gaboon and Ogoway peoples, the Fans are the most energetic and industrious. They are skilled forgers and ingenious armourers, who have discovered the art of making ebony crossbows, with which they hunt apes and antelopes, that would be scared by the report of firearms. They are also famous potters, and in the neighbourhood of the whites have become the best gardeners, so that they are now the hope of the colony. Those of the Komo district, still in a transition state between the nomad hunting and settled agricultural life, take care always to provide themselves with two stations, far removed one from the other. They have a riverain settlement well situated for trade, but exposed to the attacks of warlike flotillas, and a village in the forest affording a refuge when warned in time by the tam-tam or the ivory trumpet of a threatening danger. The riverain hamlet may be destroyed, but the other remains, and in that are preserved all their valuables. All villages are disposed so as to guard against sudden surprise, and sentinels are always stationed at both ends of the street. In the centre stands the palaver house, where the warriors assemble to deliberate, all capable of bearing arms having the right to make their voice heard in the assembly.

In the hilly region about the Ogoway, Nyanga, and Kwilu headstreams, dwell the A-Shangos, akin to the Okandos and A-Shiras of the Ngunié and Rembo basins. According to Du Chaillu, although darker than their neighbours, the A-Shiras are amongst the finest and most intelligent peoples in Africa. But they are rapidly decreasing, partly through the fearful ravages of small-pox, partly through their depraved taste for the use of liamba. From the A-Shira territory comes this pernicious drug, which with *alugu*, or "brandy," is the great "civilising medium" throughout the Gaboon and Ogoway lands.

#### THE A-BONGOS, MA-YOMBES, AND BA-FYOTS.

Scattered amongst the A-Shango forests, and farther east towards the great river, are the frail leafy huts of the pigmy A-Bongos (Obongo), a shy, timid people living on roots, berries, and game. They are the O-Koas (A-Koas),





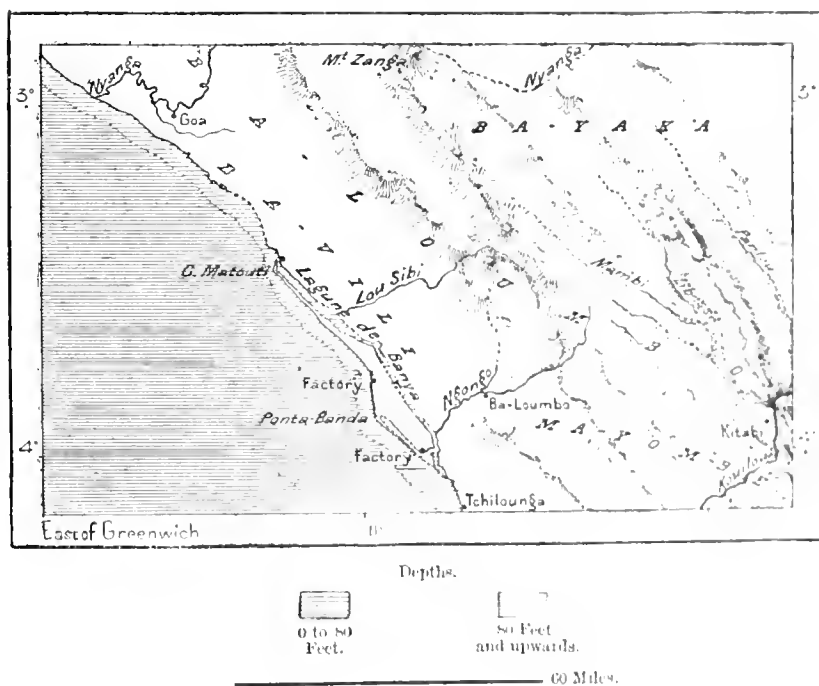
FAN WOMEN AND CHILD, FAN, OF THE O. O.



described by Marche, and the Ba-Bongos seen by Falkestein in the Loango district. According to Du Chaillu, the A-Bongos are of a yellowish complexion, with low retreating brow, prominent cheek-bones, timid glance, hair disposed in little frizzly tufts, relatively short legs, and very short stature. Of six women measured by him, the tallest was 5 feet, the shortest 4 feet 4 inches, and one adult man only 4 feet 6 inches; but the O-Koas seen by Marche on the Upper Ogoway averaged about 4 inches taller. They are divided into small tribal or family groups, dwelling in the recesses of the forests, remote from all beaten tracts, in low leafy huts, scarcely to be distinguished from the surrounding vegetation. Their A-Shango neighbours treat them with great kindness, almost with tenderness,

Fig. 192.—THE BANYA LAGOON AND BA-LUMBO COUNTRY.

Scale 1 : 2,400,000.



and when any of their women appear at the markets they are laden with presents of bananas and other fruits. In the Okanda country they hunt the python with assegais and eagerly devour its flesh. But although keeping mostly aloof from the surrounding peoples, the A-Bongos are gradually adopting their usages.

The mixed populations dwelling near the coast, south of the Nyanga river, and collectively known as Ba-Lumbos or Ba-Vilis, consist largely of runaway slaves from the Gaboon and Congo factories, who have taken refuge on this inhospitable seaboard, where they are sheltered from attack by the surf-beaten shore and surrounding swamps and forests. By alliances with the aborigines they have formed fresh ethnical groups, which, however, differ little in their customs from the neighbouring Ba-Yahas in the interior. Like them they suspect

the dead to trees, and keep powerful fetishes, which forbid the women to eat goat or game, and command them to till the land and to obey their husbands in all things. The Ba-Lumbos still shrink from contact with the whites, still remembering the days of the slave-trade. Their chief industry is the preparation of salt, which they obtain from the sea-water by means of artificial heat, and export it to the Ba-Yahas, who prefer it to the European article.

The Ma-Yombes of the Kwilu basin and neighbouring Portuguese territory are grouped in numerous republics or chieftaincies, some comprising a single village, others forming confederations of several communities. For centuries they have maintained direct relations with the Portuguese traders, from whom they have learnt to build houses in the European style. But the influence of the whites disappears rapidly in the direction of the east beyond the coast ranges, which have only in recent years been crossed by explorers. Here dwell the Ba-Kunyas, Ba-Kambas, and others, regarding whom the strangest reports were long current amongst the Ma-Yombes. Some were dwarfs, others giants, or one-armed or one-legged, or else people with tails, which when they sat down were inserted in holes in the ground. Possibly there may have been some foundation for the statement that one of their kings never rose from his couch except by the aid of two spears which pierced the breasts of two wretches daily devoted to death.

In the district between the Kwilu and the Congo dwell the Ba-Fyots, or Ba-Fyorts, who claim to be much more civilised than the surrounding barbarous tribes, and who appear to form the transition between the Bantus of the Gaboon and those of the Congo. In the sixteenth and first half of the seventeenth century the whole region bounded north by the Kwilu formed part of the empire of the *Mfuma*, or "great father," king of the Congo. But the imperial power was represented by lieutenants (*muene*, *mani-fuma*), who gradually asserted their independence. Thus were founded the kingdoms of Loango, Kakongo, and Ngoyo, which again became subdivided into autonomous territories, each with its chief, assisted by ministers and a council of elders. After the king's death, his obsequies were deferred for several years, the power during the interregnum being entrusted to the *ma-boma*, or "master of terror." It is related that at the last death the people were too poor to worthily celebrate the funeral rites, and that consequently he was left unburied. He is supposed still to live, the actual chiefs being officially regarded as simple delegates or viceroys. Several bear Portuguese names, and are surrounded by officials with titles and functions recalling the influence formerly exercised by the representatives of the Court of Lisbon.

Even certain Christian practices have survived, such as processions headed by the crucifix, and baptism, followed however by circumcision. Nzambi, the great god or goddess of the Ba-Fyots, is mostly confounded with Sa-Manuehu, the Madonna, or with the "Earth," mother of all. The native theologians have also a sort of trinity, Nzambi, mother of the Congo, being associated with her son in the government of the universe, while a third person, Deisos, takes part in the direction of human affairs. The goddess is represented by the most venerated of

all fetishes, who punishes with death those guilty of eating forbidden meats, possibly a reminiscence of the Christian fasts. Every prayer addressed to the fetish is clenched by a nail buried in the body of the wooden effigy, and it must sink deep and cause even a painful wound, so that the goddess pay due heed to her humble votary's supplication. So recently as 1870 human sacrifices were still made at the burial of a prince, and in 1877 a witch was burned in front of the European factories at Cabinda.

The Ba-Fyots, called by the Portuguese Cabinda or Cabenda, from the trading

Fig. 193.—A CABINDA.



station some 36 miles north of the Congo mouth, are skilful boatmen, who build the so-called *pulhabotes*, substantial seaworthy craft, with which they carry on a coast trade along the seaboard from the Gaboon to Mossamedes. Like the Kroomen, they also take temporary service in the factories or on board the European vessels. They are also excellent masons, cooks, and tailors, constituting in the southern Portuguese possessions a large part of the artisan population. It is noteworthy that amongst the Cabindas infant mortality is almost unknown, the

children being entirely exempt from rickets and the numerous other maladies that sweep off so many in civilised lands.

In these equatorial regions the interior is henceforth opened to European enterprise, and the natives, who till recently took no part in international trade, may now exchange their gums and ivory for European wares. But without systematic cultivation of the soil the French possessions can have no economic value. They will become mere military settlements surrounded by a few groups of factories and missionary stations, and useful for keeping open the communications with the interior. Hitherto no symptoms can be detected of any great social change, except that the Mpongwes are being gradually displaced by the more industrious and more intelligent Fans. But apart from trade, with all its attendant evils, the civilising efforts of the whites have borne so little fruit that a serious beginning has apparently still to be made. What has most to be dreaded is the employment of force, which in a single day would undo the work already accomplished in the Ogoway and Alima basins by the patience and forbearance of M. Brazza and his associates.

#### TOPOGRAPHY.

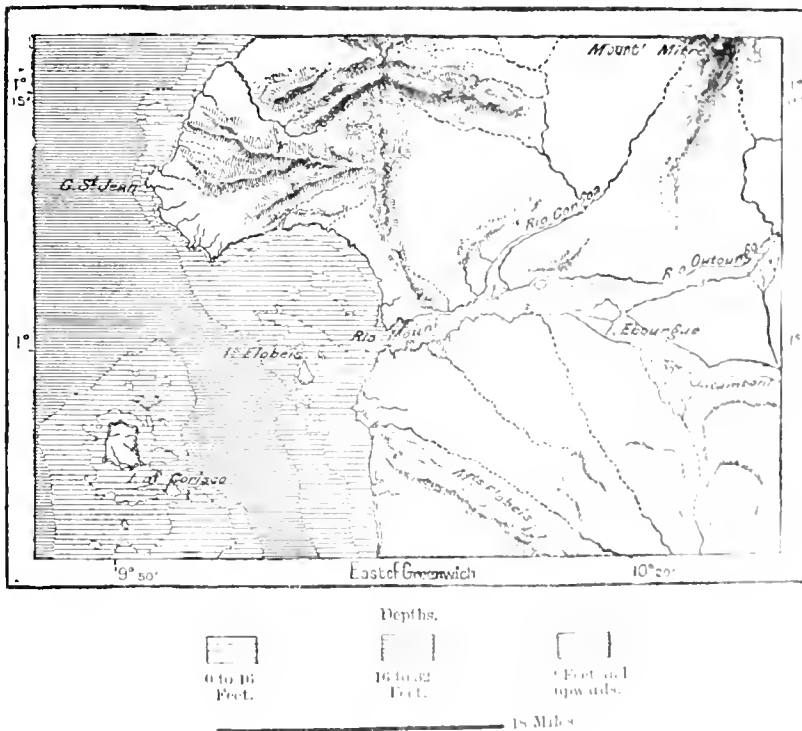
North of the Gaboon estuary there are no settlements beyond a few factories and missionary establishments about the mouths of the San-Benito and other rivers. The largest centre of native population is found in the Spanish island of Corisco, that is, "Lightning," so named from the thunderstorms here witnessed by the first Portuguese navigators. Corisco is a flat island about 6 square miles in extent, forming a southern continuation of Cape St. John, and inhabited by about one thousand Mbengas, over a fourth of whom have been taught to read and write by the Protestant and Catholic missionaries stationed amongst them. No European traders reside on the island, the attempts made by the Dutch in 1879 to make it a commercial settlement having failed. Great Elobey also, lying to the north-east near the head of the bay, has been abandoned to the natives, the foreign dealers confining themselves to Little Elobey, an islet half a square mile in extent lying nearly opposite the mouth of the Muni. From this point they are able to superintend and communicate with their factories on the coast, for Little Elobey lies in smooth water, sheltered by Corisco and Great Elobey from the Atlantic surf. The only inhabitants are the European traders with their agents and Kroo domestics, who are supplied with provisions by the Mbengas of Great Elobey. The islet enjoys a healthy climate, and serves as a health resort for the whites engaged on the mainland. Officially all these islands depend on the government of Fernando-Po, but this political connection appears to be little better than a fiction, the sovereign power being unrepresented by a single Spanish sentinel. The factories also nearly all belong to Hamburg merchants, paying neither imports nor customs to Spain.

*Libreville*, capital of the French possessions, so named from the emancipated slaves settled here in 1849, lies on the north side of the Gaboon estuary, on a

terrace dominated by the Bouet and Baudin hills to the north. Although containing no more than fifteen hundred inhabitants—French and other whites, Senegalese, Kroomen, and Mpongwes—Libreville is scattered over a space of about four miles along the roadstead. Here is a Catholic establishment, where over a hundred children are taught various trades, and also cultivate extensive cocoa-nut, oil-palm, and other plantations, serving as a sort of nursery for the whole region between the Niger and Congo mouths. At the opposite extremity of Libreville lies the American missionary station of *Baraka*, where instruction has now to be given in French, the official language of the colony. Near it are the factories of *Glass*, mostly belonging to foreigners, and much more important than the French

Fig. 194.—CORISCO BAY.

Scale 1 : 800,000.



houses. Notwithstanding its great political value since the acquisition of the Ogoway basin and the foundation of the Congo Free State, Libreville is far from being a source of profit to France, the revenue derived from a few taxes and import dues scarcely representing one-fourth of the annual outlay.

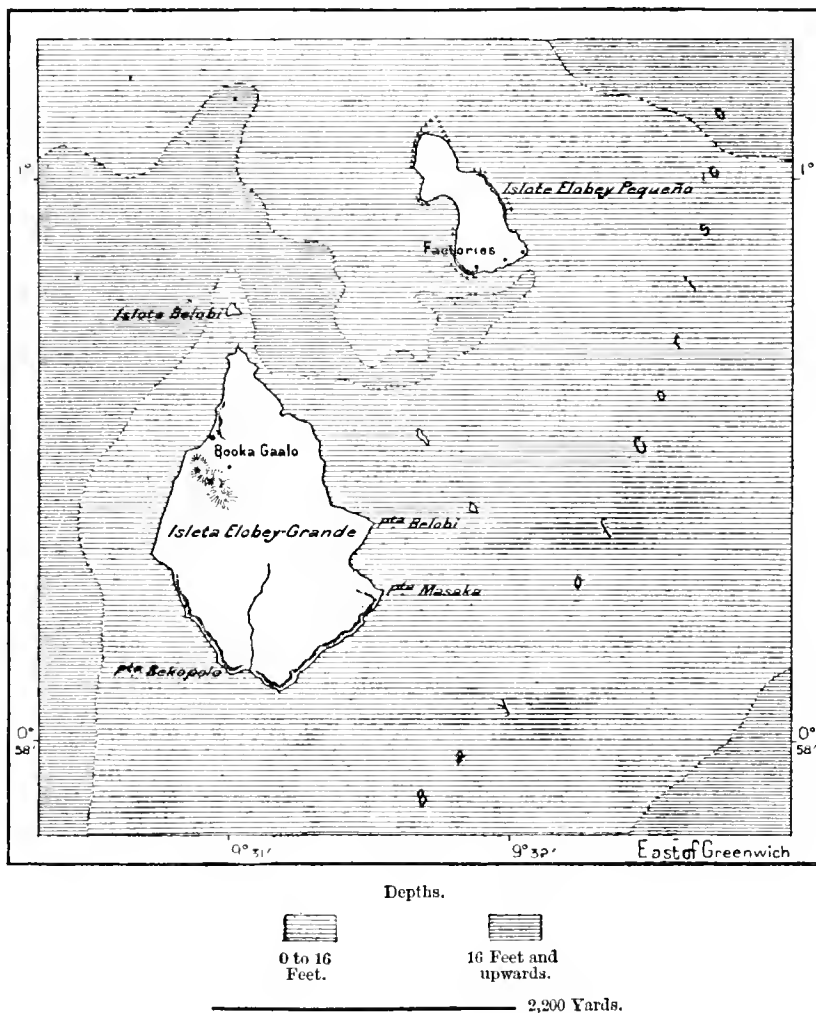
But notwithstanding its present restricted commerce, there can be no doubt that Libreville must sooner or later become a great centre of international trade. Not only is it the natural emporium for all the produce of the Komo and Kouba basins, but through the latter river it also commands the route to the Ogoway. As soon as a railway or even a carriage road is opened, all the traffic of this basin above the Ngumie confluence must flow to the Gaboon estuary. But meantime

Libreville has scarcely any value except as the centre of the military power. Besides the gardens attached to the Catholic mission, the only great plantation in the neighbourhood is that of Sibanghe, founded 10 miles farther north by a German house.

Above the delta one of the first permanent European stations on the Ogoway is *Lambaréné*, situated at the converging point of the natural highways leading

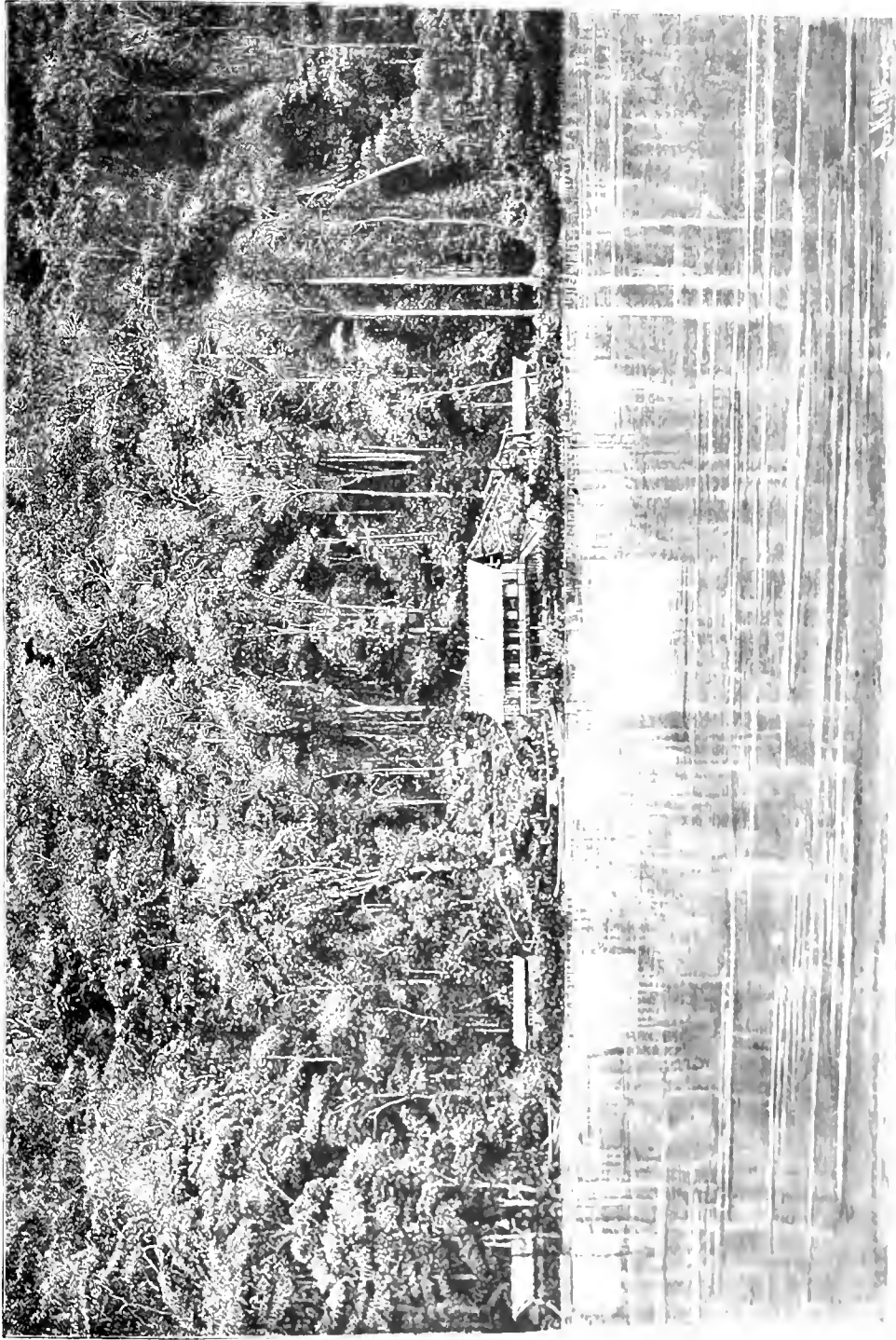
Fig. 195.—ELOBEY ISLANDS.

Scale 1:50,000.



in one direction to the Ngunie valley, in the other to the Gaboon estuary. Here also are some factories and a Catholic mission. Higher up, above an American mission and not far from the first cataracts, lies the village of *Njole*, which has been chosen as the chief town in the Ogoway basin. It stands on an islet in mid-stream and is held by a garrison of about forty native troops. Farther on follow *Okota*, *Ashuka*, near *Lopé*, a much-frequented fair, *Bunji* and *Lastoursville*, so





VIEW OF THE COAST, BETWEEN NIOBE AND TAMARONI

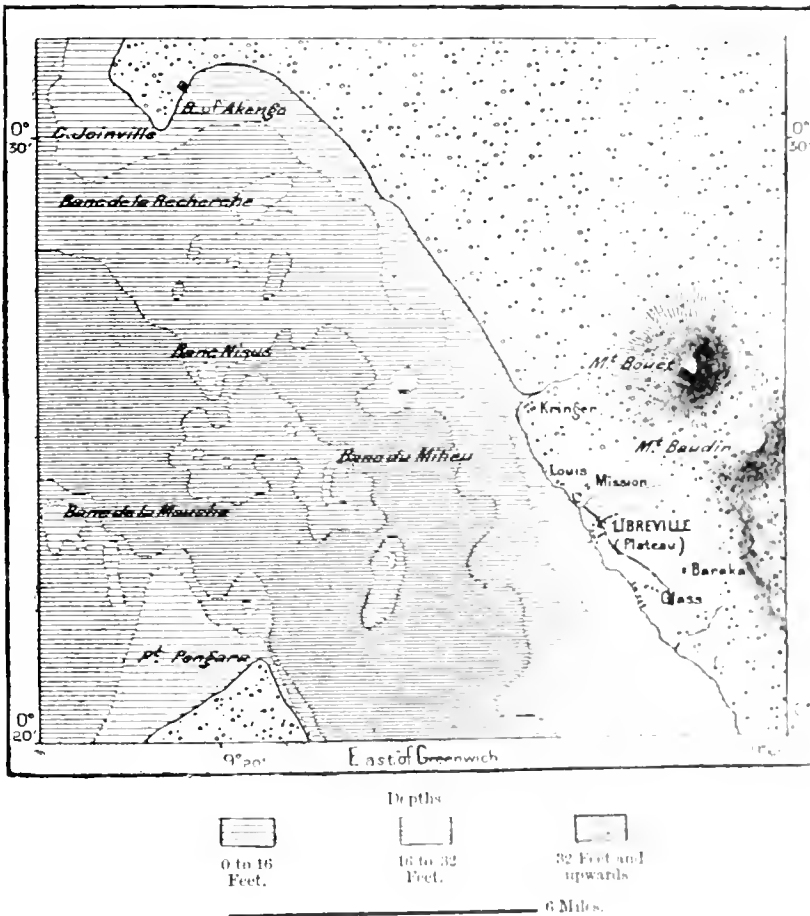


named from the explorer who here perished. Beyond the post of *Dume*, and not far from the *Ma-Poko* falls, *Franceville*, central station for the interior exploration, has been founded in the Passa valley, near the village of *Nyimi*, on the opposite side of the river. From this point runs the route, 50 miles long, leading across a rolling plateau to the navigable river Alima, and thence through the stations of *Diélé*, *Leketi*, and *Pombo* to the Congo.

South of Cape St. Catherine over fifty factories follow along the coast to the

Fig. 196.—LIBREVILLE AND MOUTH OF THE GABOON.

Scale 1 : 240,000.

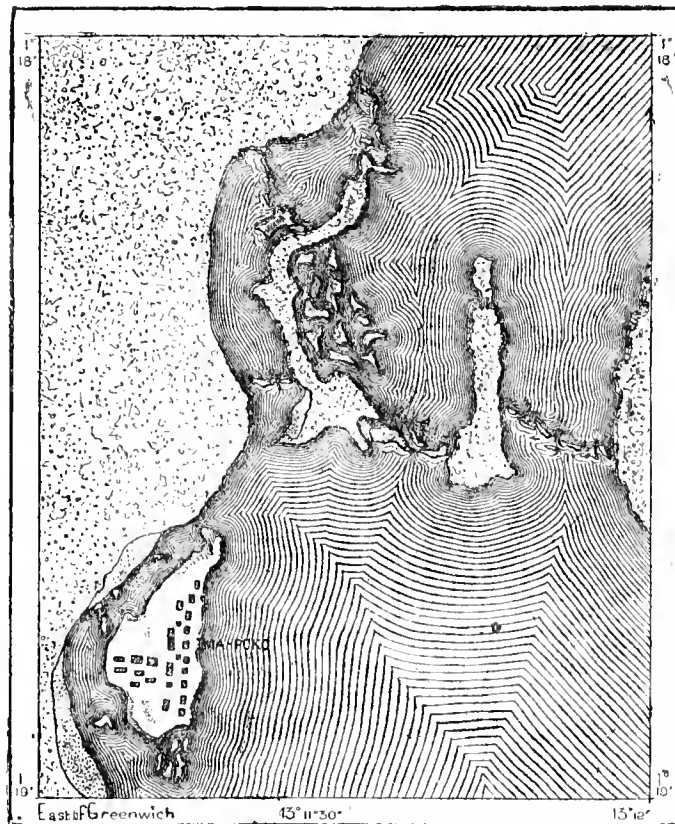


mouth of the Congo. The most important north of Loango is *Mt. Fleuve*, lying on a strip of sand between the sea and the Banya lagoon, and chief depot for the gums collected in the neighbouring forests by the surrounding Ba-Vili, Ba-Lumbo and Ba-Yaka tribes. Here every river mouth or estuary has its factory, that of the Kwilu being situated on the island of *Rois*. A group of sheds on the left bank of this river is already dignified with the name of town, being destined by the International African Association as the starting-point of the route led down

from the coast to the Congo along a line of stations which, if they do not yet exist, are at least indicated on the maps. The three chief ports founded by the French on taking possession of this valley are *Niari-Babouende*, on the upper course of the Kwilu, *Niari Lu-Dima*, at the confluence of the river of like name, and *Ngotu*, standing on a prominent bluff in the region of the cataracts. Doubtless this route must one day acquire great commercial importance, but this cannot be till a carriage road has been constructed, the Kwilu itself not being navigable.

Fig. 197.—MA-POKO FALLS ON THE UPPER OGOWAY.

Scale 1 : 17,000.



500 Yards.

Recently M. Cholet made the journey in twenty-five days from the coast to Brazzaville.

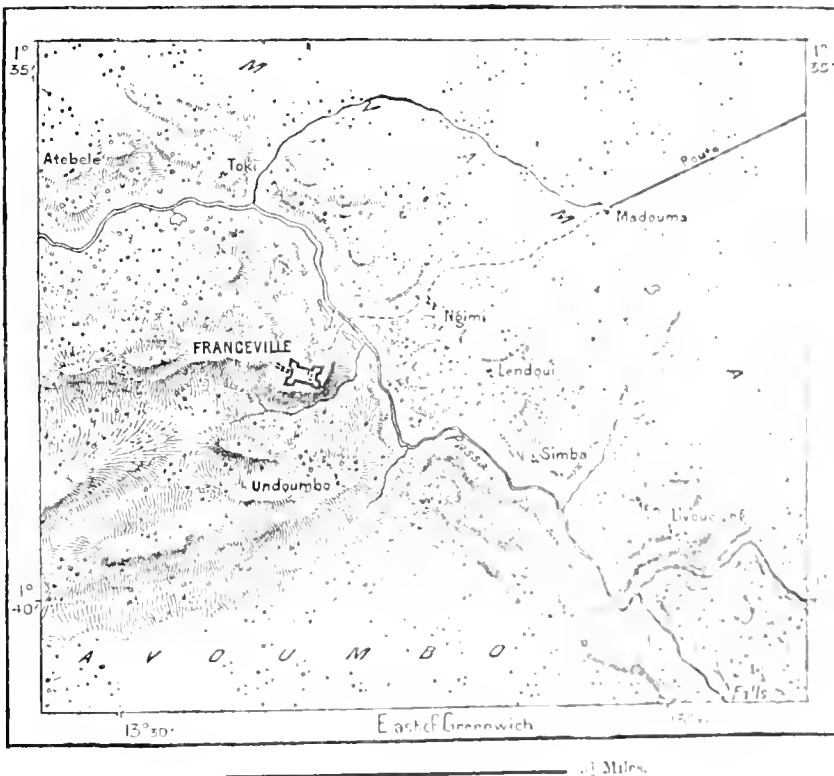
At present all the traffic of this region is carried on through the port of *Loango* (*Buala*), an old city till recently claimed by Portugal, but now assigned to France. In the days of its prosperity, when it was capital of a province of the Congo empire, Loango was said to have a population of fifteen thousand; at present it is less a town than a group of factories surrounded by *chimbeques*, that is, hovels constructed of *raphia* stems and "Loango grass," or papyrus. At this point the shore-line curves round to the west, thus sheltering the roadstead from

the prevailing winds. Goods can accordingly be landed here more easily than at any other place, and on this protected beach have been founded a number of English, French, Portuguese, Spanish, Dutch, and German factories. In the neighbouring village of *Loangiri* is seen the necropolis of the old kings of Loango, which was formerly enclosed by a barrier of elephants' tusks. The royal burial-place at *Labu* is indicated by fetishes carved in wood, and those who are destined one day to be deposited in this shrine must not penetrate within its precincts during their lifetime, as such a visit would be the herald of approaching death.

*Ponta Negra* ("Black Point,") about 18 miles farther south, occupies a position

Fig. 198.—FRANCEVILLE.

Scale 1 : 125,000.



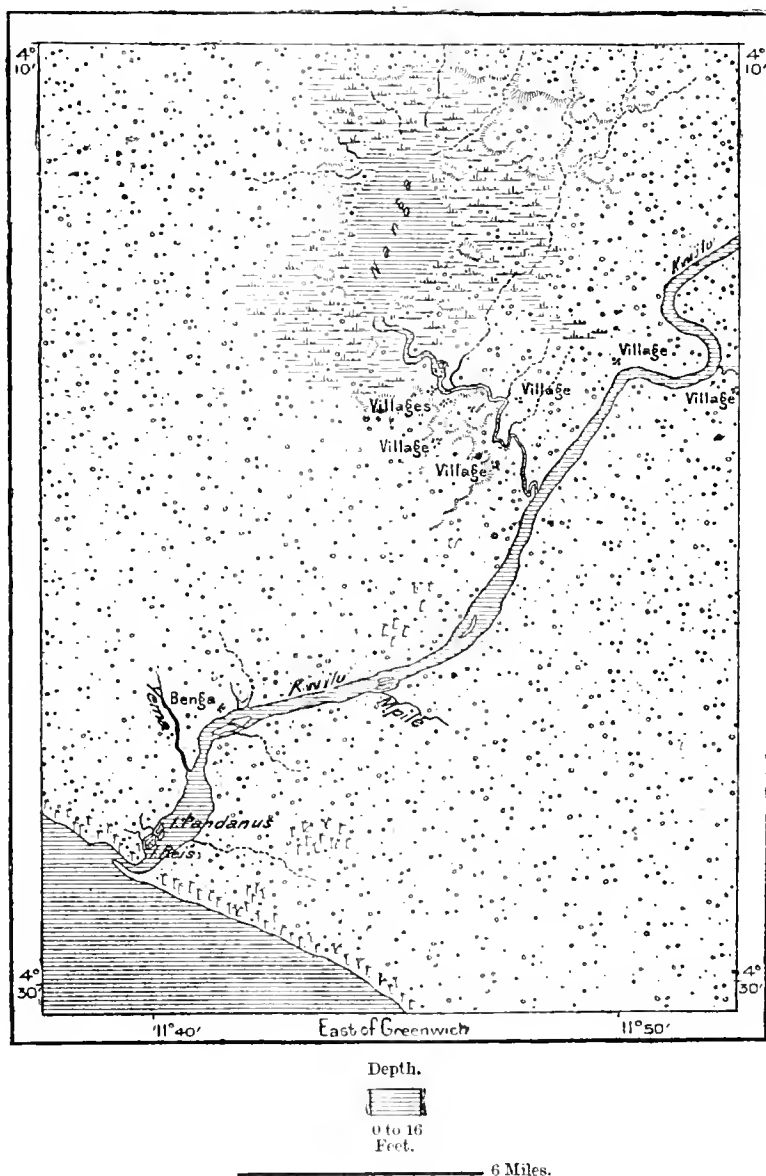
analogous to that of Loango, for here also the strand develops a semicircle round a tranquil bay, on which several factories have likewise been established. Beyond this point follow the factories of *Massaba*, the first within Portuguese territory, and a little farther on the station of *Shinshosho*, former headquarters of the German explorers connected with the Loango expedition. In order to protect their warehouses from plunderers, the traders have proclaimed them "fetish," giving the natives to understand that the terrible god of the white lies concealed behind the brandy casks and bales of cotton.

The port of *Landana*, more than a mile to the south of the *Shinshosho*

"Little Loango" river, is comprised within the Portuguese enclave, which is limited on one side by the French possessions, on the other by the new Congo State. It is one of the pleasantest places on the whole coast, embowered in the graceful foliage of the palms, above which rise the red sandstone cliffs of the

Fig. 199.—MOUTH OF THE KWILU.

Scale 1 : 300,000.

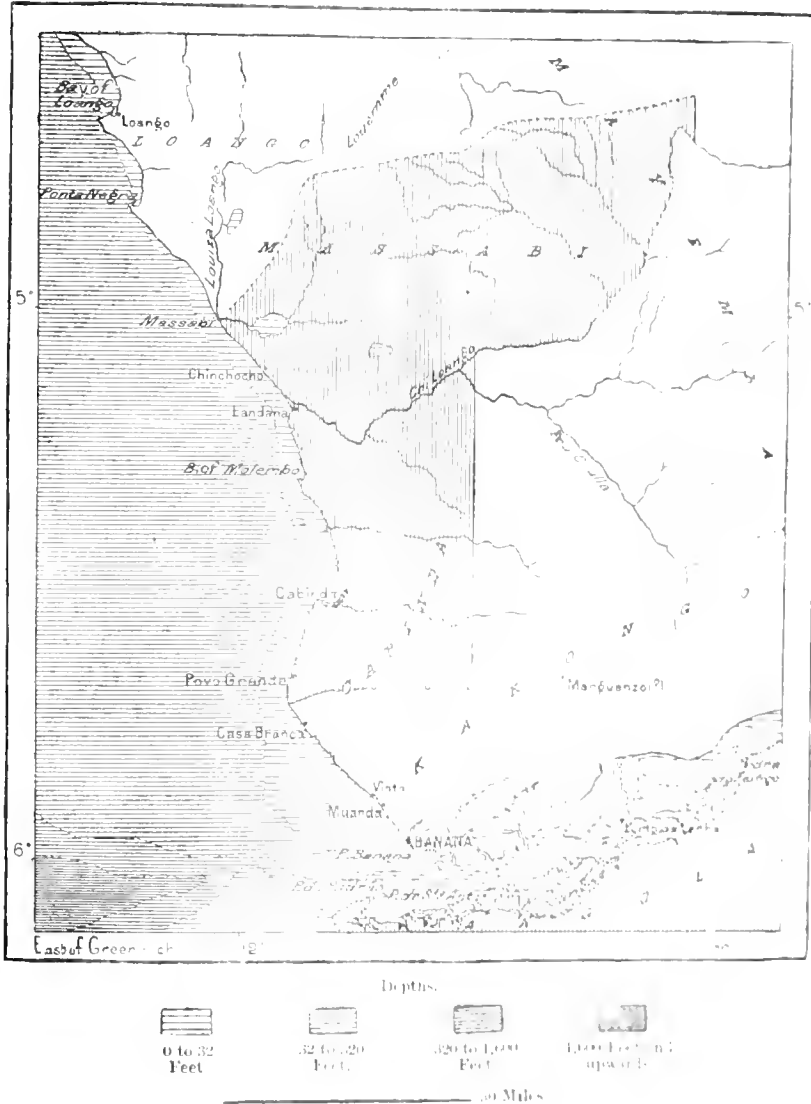


seaboard. Round the Catholic mission stretch magnificent gardens and the finest orange groves in equatorial Africa; but the climate is unfortunately rendered malarious by a lagoon fringed with a border of eucalyptus introduced from Australia. The trade of Landana and of its neighbour, *Malemba* (*Molembo*),

consists chiefly in palm-oil and nuts. At a time when ivory was more abundant than at present, the natives of this district displayed remarkable artistic skill and taste in embellishing the tusks with sculptures disposed in spirals, like the bas-relief of Trajan's column, and representing processions, battles, and treaties of

Fig. 200.—PORTUGUESE POSSESSIONS NORTH OF THE CONGO

Scale 1 : 1,500,000



peace. Some of the figures are very curious, reproducing whites of various nationalities with singular fidelity and a delicate touch of humour.

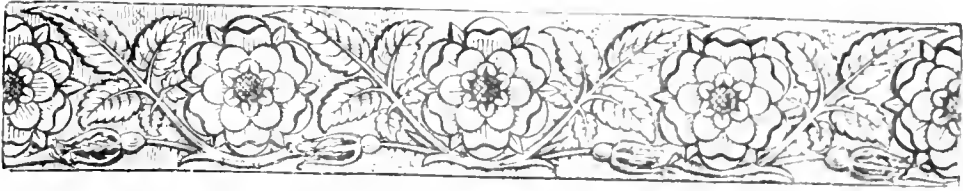
*Cabinda*, no less picturesque than *Landana*, stands on a more capacious bay, where vessels can ride at anchor under shelter from the south and south-west winds. Thanks to the industry of its enterprising inhabitants, *Cabinda* has become

a very busy seaport, and although lying some 36 miles north of the mouth of the Congo, it is already one of the *entrepôts* for the commerce of that basin. Its chief factory is the centre for all the British trade between the Gaboon estuary and Loanda. *Poro Grande*, the largest village in Portuguese territory, is dispersed among the bananas and gardens stretching along the coast south of Cabinda. One of its hamlets was capital of the former kingdom of Ngoyo. A part of the local trade is in the hands of the Ma-Vumbus, a people of grave and solemn aspect, with intelligent eyes, straight or even aquiline nose, whose pronounced Semitic type has earned for them the Portuguese designation of *Judeos pretos*, or "Black Jews." They may certainly be regarded as of Jewish origin, if the statement be true that they are strict observers of the sabbath, abstaining even from all conversation on that day. According to the natives, the Ma-Vumbus were expressly created by God to punish other mortals by reducing them to poverty.

According to the provisional administration recently bestowed on them, the Portuguese possessions lying north of the Congo are attached to the province of Angola, constituting a special district with the territories beyond the Congo as far as Ambriz. Cabinda is the capital of this district, which is divided into the two northern circumscriptions of Cabinda and Landana.







## CHAPTER XL.

### CONGO BASIN.

#### GENERAL SURVEY.



THE great river whose waters colour the sea far beyond the Cabinda coast, takes its rise thousands of miles from its mouth on the Atlantic, its farthest headstreams having their source much nearer the Indian than the Western Ocean. During its long course, describing a vast semicircle through the interior of the continent, it receives diverse names from the riverain populations, all, however, having probably the same meaning of "Moving Sea," or "Great Water." The first navigators hailed it as the Poderoso, or "Mighty Stream," but afterwards learnt from the natives the term Zaire (Nzadi), still current amongst the Portuguese.

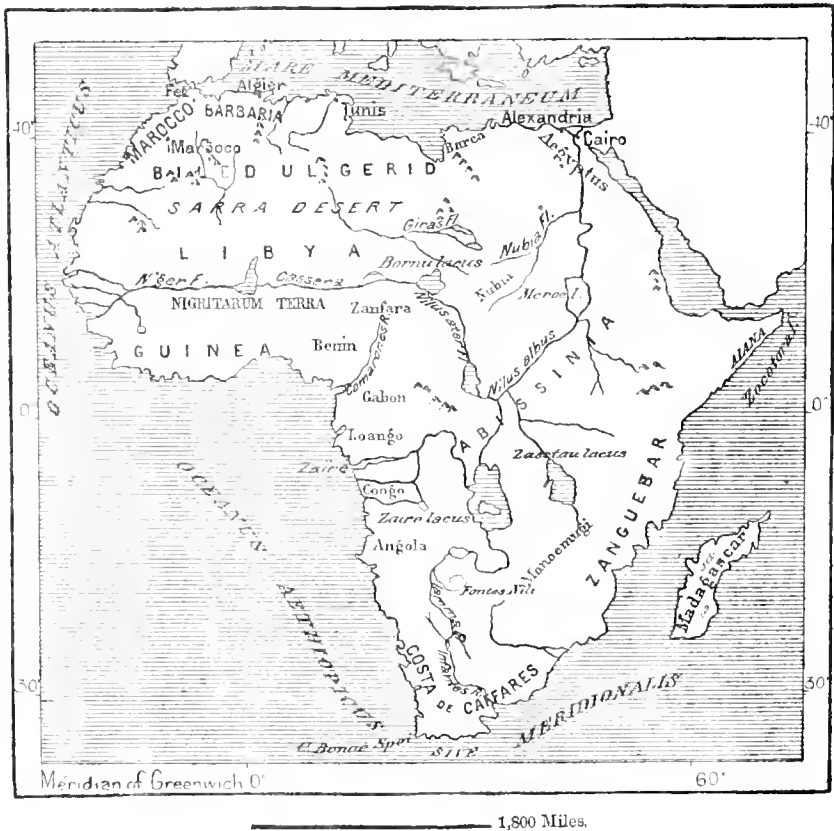
After his memorable expedition across the continent, Stanley proposed the name of Livingstone in honour of his illustrious forerunner; but the proposition was not adopted, and the name of Congo, which was also that of the empire, which in the sixteenth century comprised a portion of the western basin, has finally prevailed in geographical nomenclature. The same name has also been taken by the recently founded State, whose frontiers have already been traced, partly in the presumed direction of the water-partings, or along the course of the river itself or of its affluents, partly according to the meridians and parallels of latitude. But a great part of the vast domain thus defined on the map of Africa still remains to be discovered, while the course of the great artery itself has been known only for a few years.

During the three centuries following their first discoveries on the African seaboard, the Portuguese acquired a detailed knowledge only of the immediate coastlands. Nevertheless numerous expeditions had been sent inland, both in search of gold and to bring the inhabitants under the sway of the king of Portugal, and also to discover that mysterious "Prester John" who had been vainly sought in the heart of Asia. During these expeditions it was ascertained that the Zaire had its rise in the depths of Africa, and that great lakes existed in the interior.

of its sources. But at this period no maps were able to give any detailed outline of the course of the river, and the tracings reproduced on the globes endeavoured to harmonise the definite statements of the Portuguese explorers with the African legends and classical traditions of Ptolemy. Thus João de Barros holds as certain that the Zaire flows from the largest lake in Africa, which is itself "the mysterious head of the Nile;" and Duarte Lopez also assigns the same origin to both rivers. Even in the maps of the eighteenth century the same false ideas hold their ground,

Fig. 201.—AFRICA, ACCORDING TO HOMANN, IN 1711.

Scale 1 : 90,000,000.



although Mercator had already in 1541 regularly limited the two fluvial basins by their water-partings.

The era of scientific exploration in the Upper Congo basin begins towards the close of the last century with the expedition of José de Lacerda e Almeida, who in 1798 penetrated from Mosambique to the region of the great lakes. In 1806 a more fortunate expedition was made by some *pombeiros*, or caravansmen, right across the continent from the Atlantic to the Indian Ocean. But of the route followed little is known beyond the fact that, after passing the great Kwango affluent, they traversed the southern slope of the Congo basin as far as Lacerda's surveys in the

lake region, whence they reached the Zambesi. In 1813 the Portuguese Graça penetrated from the west coast to the Upper Kassai Valley in the territory of the Muata-Jamvo. But the first decisive journey in any region within the Congo basin was that made in 1857-8 by Burton and Speke to the east side of Tanganyika, without, however, crossing this inland sea or ascertaining whether it belonged to any fluvial system. Even after visiting other lakes beyond Tanganyika and discovering a network of streams flowing northwards, Livingstone was still unaware to what basin they belonged. He even supposed they flowed to the Nile, sending everything to the Egyptian river, like the old writers, and from his reports many modern geographers still described the great inland lakes from the Bangweolo to the Albert Nyanza as affluents of the Mediterranean.

Nevertheless the knowledge already acquired of the continental relief, and of the periodical floods in the various fluvial basins, enabled scientific students to see that the rivers described by Livingstone were really tributaries of the Lua-Laba, or Upper Congo, which traverses a less elevated region than the plateau containing the depressions of the Victoria Nyanza and other lakes draining to the Upper Nile. Its floods, due to the south tropical rains, reach their highest level in January, whereas those of the Upper Nile occur in August and September. The discharge of the Lua-Laba, calculated at low water by Livingstone, is also over three times greater than that of the Nile below the Bahr-el-Jebel and Bahr-el-Ghazal confluence. Hence it was evidently impossible to hold that the Lua-Laba flowed to the Nile; and the Shari and Ogway being excluded on similar grounds, there remained only two alternatives, either that it discharged into some vast inland basin which had never been heard of, or else joined the Lower Zaire—by far the most likely hypothesis.

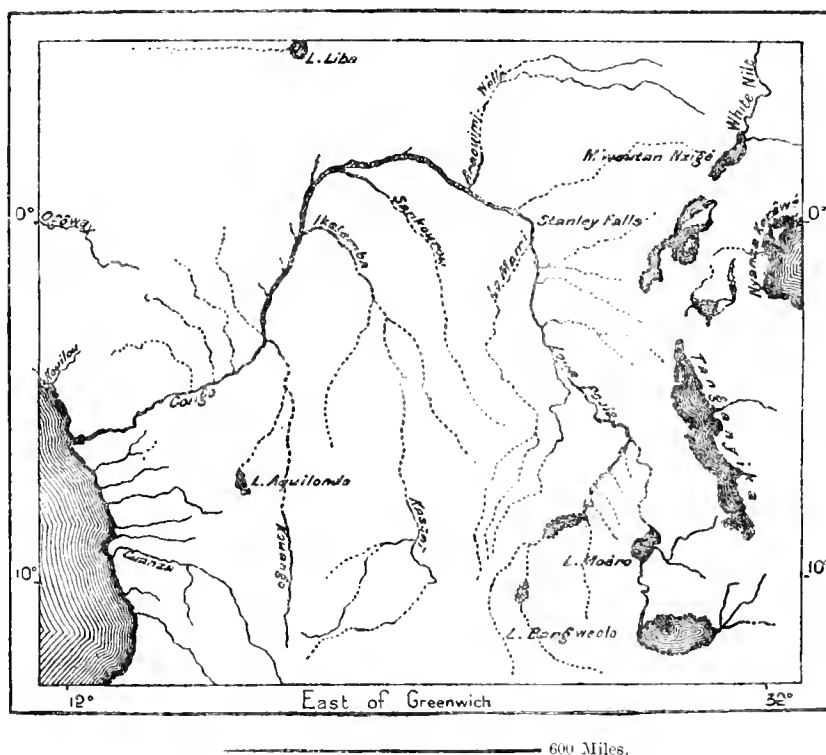
The point was finally settled by Stanley, who after finding Livingstone on the banks of the Tanganyika in 1871, embarked in 1876 on the Lua-Laba, and after nine months' fluvial navigation reached the mouth of the Congo. The whole expedition had lasted, from the time of its departure from Zanzibar, altogether nine hundred and ninety-nine days, and a distance of 7,000 miles had been traversed in the various explorations of the great lakes and the river. Rapids had been shot, falls turned, rocks blown up, boats pushed across forests and ravines; hunger and fever had been endured, and as many as thirty-two battles fought with the natives, some perhaps too hastily. Of the four Europeans forming part of the expedition, Stanley alone had survived, and of his three hundred and fifty-six native followers, two hundred and forty-one were left behind in the wilds of Africa. After this prodigious exploit, displaying marvellous daring and energy, indomitable perseverance, amazing moral ascendancy and military talents of a high order, nothing remained except to verify the correctness of the summary draught of the course of the main stream, and connect with this fundamental route all subsequent surveys made in the region of the Congo and its affluents. In this work are now engaged a host of explorers, and the observer remains almost overwhelmed with the great results of his wanderings.

space of twelve years since Stanley sailed down the Lua-Laba and found it the Congo.

The eastern slope of Lake Tanganyika has already been visited by a very large number of white travellers, traders, and missionaries, and the journey has even been made by a lady, Mrs. Annie B. Hore, in a bath-chair. Houses in the European style have sprung up on its shores, and its waters have been navigated by steam. South-west of Tanganyika, geographical triumphs have been less brilliant, although even here Livingstone's routes have been crossed and completed by those of Girauld, Bohm, and Reichardt. Towards the west, Cameron,

Fig. 202.—CONGO BASIN AS TRACED BY STANLEY AFTER CROSSING THE CONTINENT.

Scale 1:23,500,000



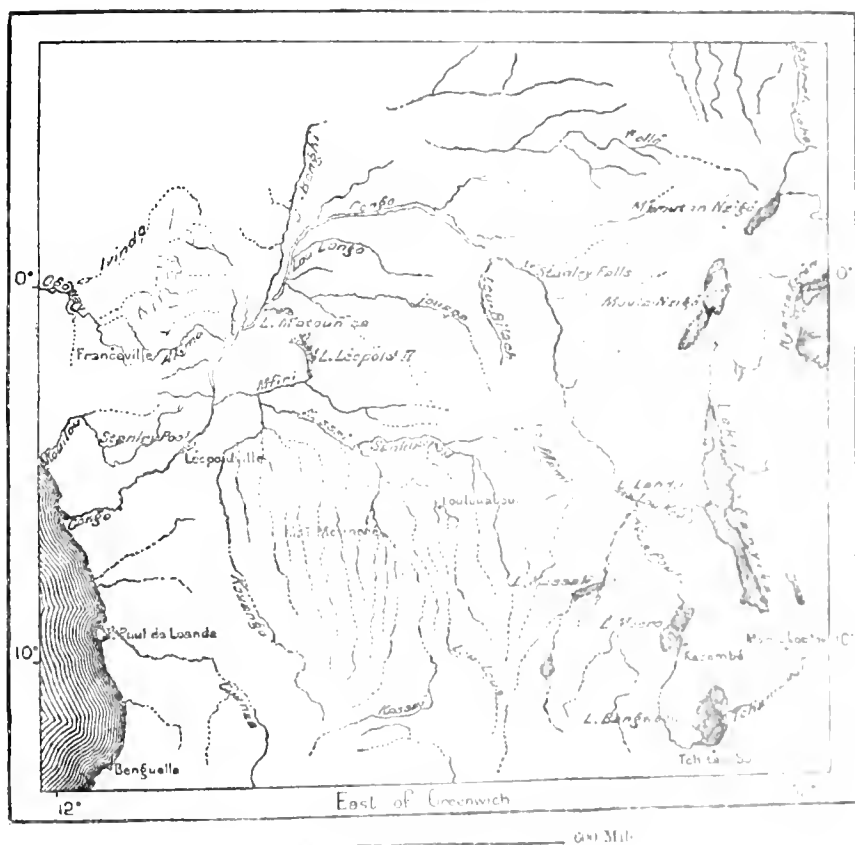
who in 1874 had discovered the emissary of the lake to the Upper Congo, also explored others of its headstreams, and crossed the divide between the Congo and the Zambese, being the first of modern travellers to complete the journey across the continent, from Zanzibar on the Indian to Benguela on the Atlantic Ocean.

Others, such as Wissmann, Gleeup, and Oscar Lenz have since traversed the Congo basin, also crossing from sea to sea, while on the western slope nearly all the Congo affluents have been ascended as far as navigable. Meehow, Büttner Tappenbeck, and Massari have surveyed the Kwango basin; Wissmann, De François and Grenfell have studied the course of the Kassai, which, with its

affluent the Sankuru, and sub-affluent the Lo-Mami, offers the most direct route from the Lower to the Upper Congo. Pierre de Brazza has opened the navigation of the Alima, which has already become a busy commercial highway; Jacques de Brazza, Dolisie, Ponel, Van Gèle, and Grenfell have penetrated from opposite sides into the Nkheni, Li-Kwalla, Bunga, and U-Banghi valleys; the same indefatigable Grenfell has ascended the Tehuapa, the Ikelumba, the Lau-Longo, the Mungala, and the Itimbiri.

Fig. 203.—CONGO BASIN AS KNOWN IN 1887.

Scale 1:24,000,000.



Since 1887 numerous explorers have also traversed the north-eastern section of the Congo basin, which of all others offers the greatest geographical interest and which will probably one day prove to be the most important, for here is situated the water-parting between the Nile and Congo basins.

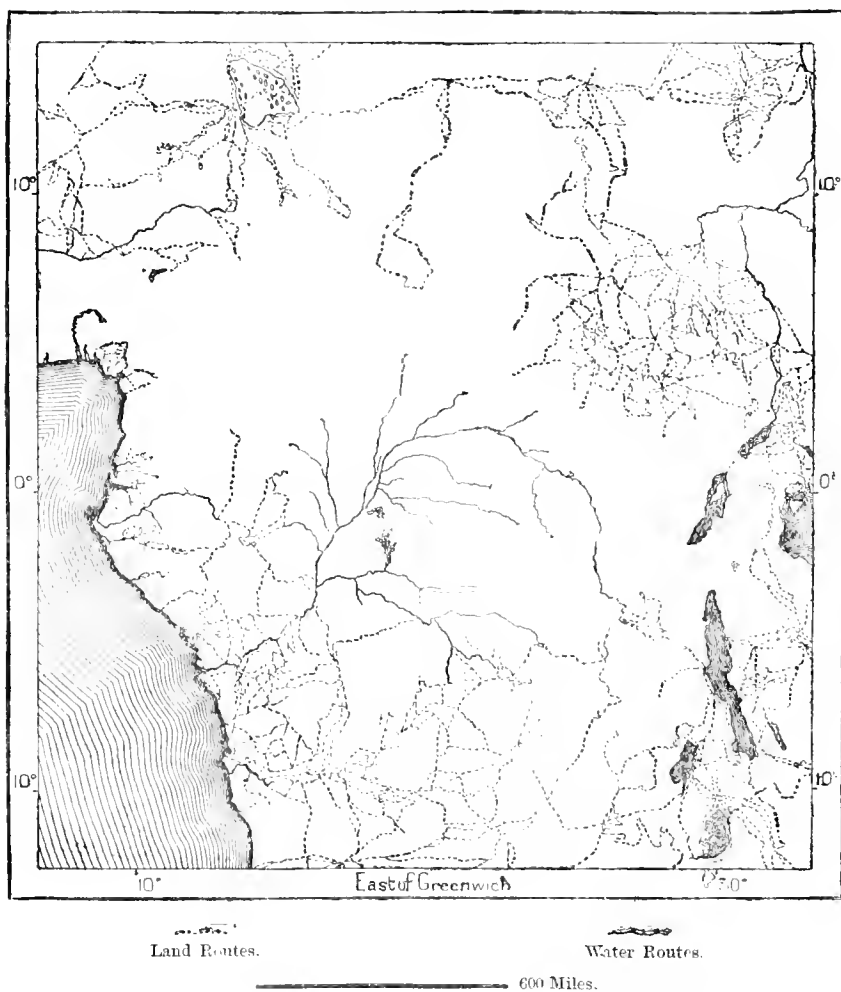
The whole course of the Welle has now been followed from the U-Banghi to the main stream, while the way to the White Nile by the Sankuru has also been opened by the Belgian military expeditions to Lado, led by M. A. de Brazza, in 1898, to Fashoda above Khartoum.

Thanks to Junker's surveys, a rough calculation may already be made of the actual extent of this vast fluvial system, which according to F. de Meuse's

about 1,630,000 square miles. But the elements even for a remotely approximate estimate of the population are still lacking. From the accounts, however, of various explorers, who have visited many thickly peopled districts, twenty millions

Fig. 204.—CHIEF ROUTES OF MODERN EXPLORERS IN THE CONGO BASIN.

Scale 1 : 8,000,000.



would certainly appear to be too low a figure, and Stanley himself considers twenty-nine millions as perhaps nearest to the truth.

#### THE TCHAMBESI AND LAKE BANGWEOLO.

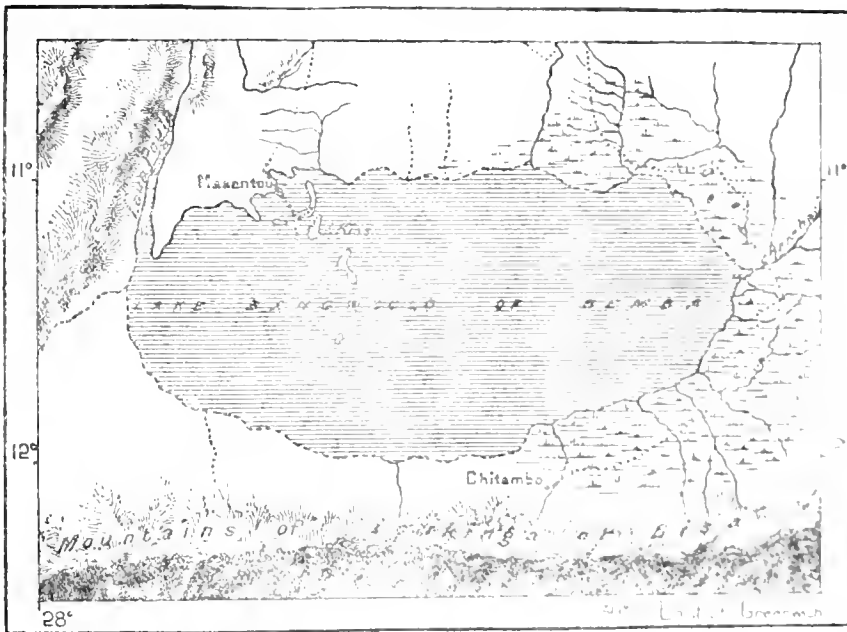
The farthest headstreams of the Congo take their rise on the southern slope of the Tchingambo mountains, midway between lakes Tanganyika and Nyassa, which in a straight line is not more than 420 miles from Kiloa, the nearest town on the shore of the Indian Ocean. This region of the Upper Congo, visited by Joseph Thomson and Stewart in 1879, and by Lenz in 1886, rises to a height of 6,000

feet, and here several streams traversing a gently rolling plateau converge in a single channel, known in its upper course as the Tchasi, and lower down as the Tehambesi. Its course is at first from north-east to south-west in the direction of the Zambesi basin, from which it is separated only by a low parting-line, but farther down, after collecting several other streams and emissaries of extensive morasses, it enters Lake Bemba, or Bangweolo, southernmost of all the great sheets of water belonging to the Congo hydrographic system.

Bangweolo, discovered in 1868 by Livingstone, and revisited by him five years afterwards to end his days on its southern shores, is an extremely irregular lacus-

Fig. 205.—LAKE BANGWEOLO, ACCORDING TO LIVINGSTONE.

Scale 1 : 3 000 000.



..... Livingstone's route.

60 Miles

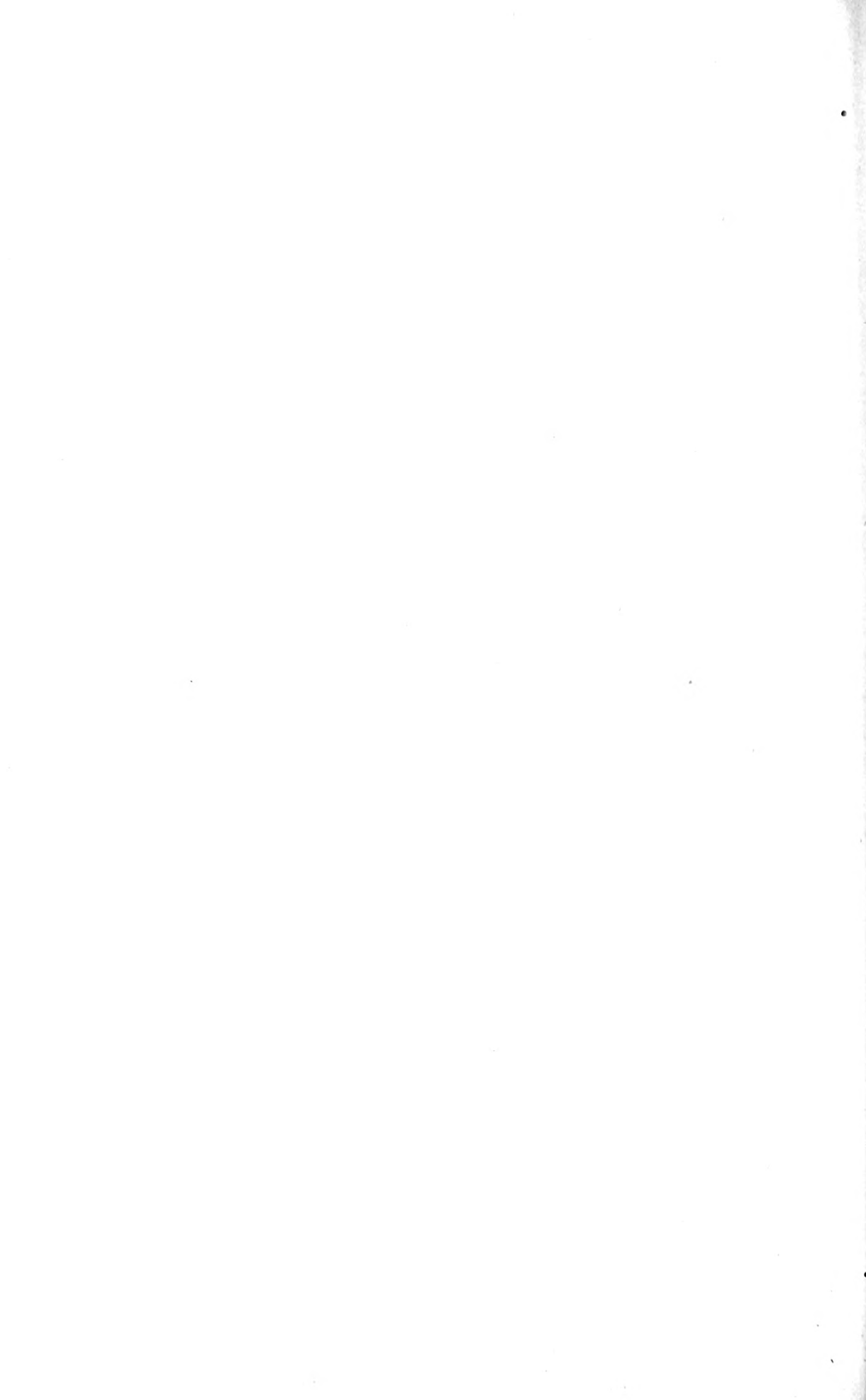
trine basin divided into numerous secondary sections by islands and peninsulas. Its altitude, estimated by Livingstone at 3,700, is raised by Girard to 4,500 feet while the forests of reeds occupying a great part of the depression render it difficult to form a correct idea of its total area. The open water at the northern extremity develops a vast oval, stretching for 60 miles beyond the horizon towards the south-west. About the centre lies the island of Kissi, highest of the archipelago, rising 60 feet above the surrounding waters, which are nowhere more than 18 or 20 feet deep, and which towards the south-east are lost in a submerged plain overgrown with sedge. Even the Tehambesi flows throughout its lower course amid low-lying marshy tracts overgrown with reeds, giving them an aspect of boundless grassy plain relieved here and there by clumps of trees. Banks rising







THE TRAVELLER GIRAUD AMID THE PALMS OF A TROPICAL ISLAND



## LAKE MOERO.

Towards the south-east extremity of the lake the two sedgy walls converge, gradually giving to the lacustrine basin the aspect of a river. Here is the Lua-Pula emissary, a meandering stream 20 feet deep and 200 yards broad, which has a winding course, probably of 120 miles, flowing first south and south-west, then trending abruptly north-west to the Mambirima (Mombottuta) rapids. Beyond these dangerous cataracts no European traveller has yet followed the course of the Lua-Pula, which, however, is known to turn northwards to join Lake Moero, or Meru. In this section of its course, about 180 miles long, falls or rapids must be very numerous, for according to Giraud the difference of level between Lakes Bangweolo and Moero is no less than 1,500 feet. To Moero itself Livingstone assigned an altitude of 3,460 feet, which Giraud reduces to 2,820. Although of somewhat smaller size it presents a larger extent of open water than the southern basin, stretching for about 90 miles uninterruptedly from south-west to north-east, where it is separated from the southern extremity of Lake Tanganyika by an isthmus, also 90 miles broad. Towards the south where it receives the Lua-Pula influent, the shores merge in boundless marshy plains, but everywhere else its waters are clear and deep. Livingstone, who visited it at two intervals, ascertained that the difference between high and low-water level is at least 20 feet. The surface of the lake is increased hundreds, possibly thousands, of square miles during the floods, when the fish of Silurian types, such as the *Clarias capensis*, spread over the riverain lands, devouring the insects, reptiles, and other animals drowned by the inundations; and when the waters begin to subside these silurids are in their turn captured in thousands, by means of dams and fishing-baskets. The natives mentioned to Livingstone the names of thirty-nine species inhabiting the lake and the Kalongozi, its great affluent from the east. A few islands are scattered about the central parts, while towards the north the Moero assumes the aspect almost of an Alpine basin between the lofty cliffs and wooded slopes of the Rua and Koma ranges.

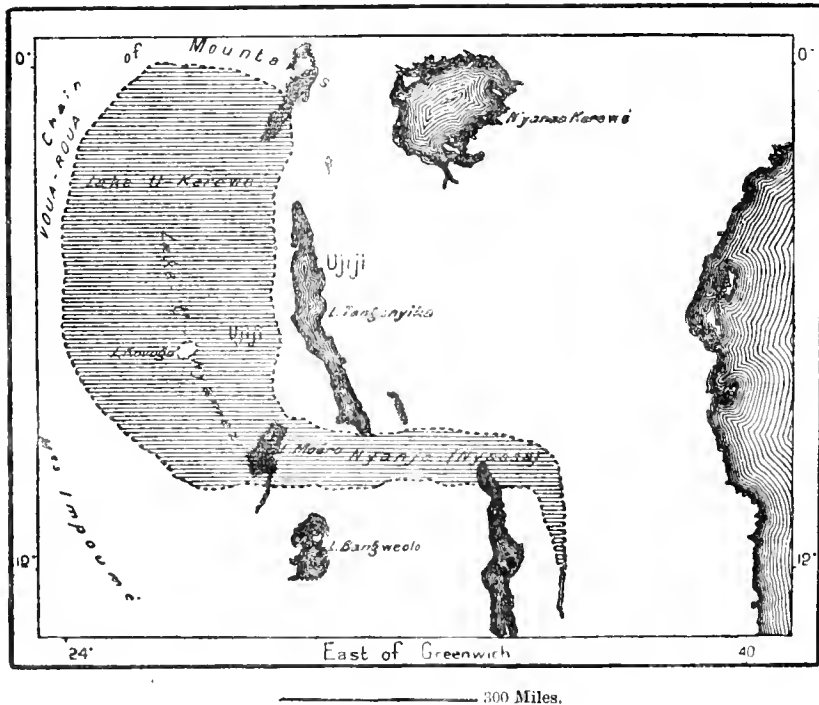
## THE KAMOLONDO BASIN.

As they converge from the west and east, these two chains contract the lake to a narrow channel, forming the Lua-Vua or Lua-Laba emissary, called by Livingstone Webb's River. Here the clear although dark current rushes between the forest-clad hills from rapid to rapid, from gorge to gorge, till it reaches the Lupa basin, which native report represents rather as a permanently flooded depression, than as a lake in the strict sense of the word. Yet in this reservoir is formed the true Congo, for here converge both the Kamolondo, or western Lu-Laba, and the Lu-Kuga emissary from Tanganyika. The Kamolondo itself develops an extensive fluvial system, bounded south by the great divide between the Congo and Zambesi, and comprising such large *lu*, or "rivers," as the Lu-Bari, the Lu-Luba, the Lu-Laba, and the Lu-Fira. The last mentioned is obstructed by numerous

picturesque cascades, such as the Juo falls, where the white foaming waters tumble down a height of 80 feet between rocky red sandstone walls. The main stream on the contrary flows through a chain of lakes, of which the largest, known as the Lo-Hamba, lies secluded in the upper valley, while the others follow along the lower course like a string of pearls on a necklace. Reichard, who crossed it at over 120 miles above the confluence, asserts that of the two Lua-Labas the Kamolondo is the most copious, and although not the longest, should on this account be regarded as the main branch of the Upper Congo. On the other

Fig. 207.—LAKE U-NYAMEZI, ACCORDING TO ERHARDT AND REBMANN.

Scale 1:20,000,000.



hand the Tanganyika emissary sends down very little water, and was even dry when first visited by explorers.

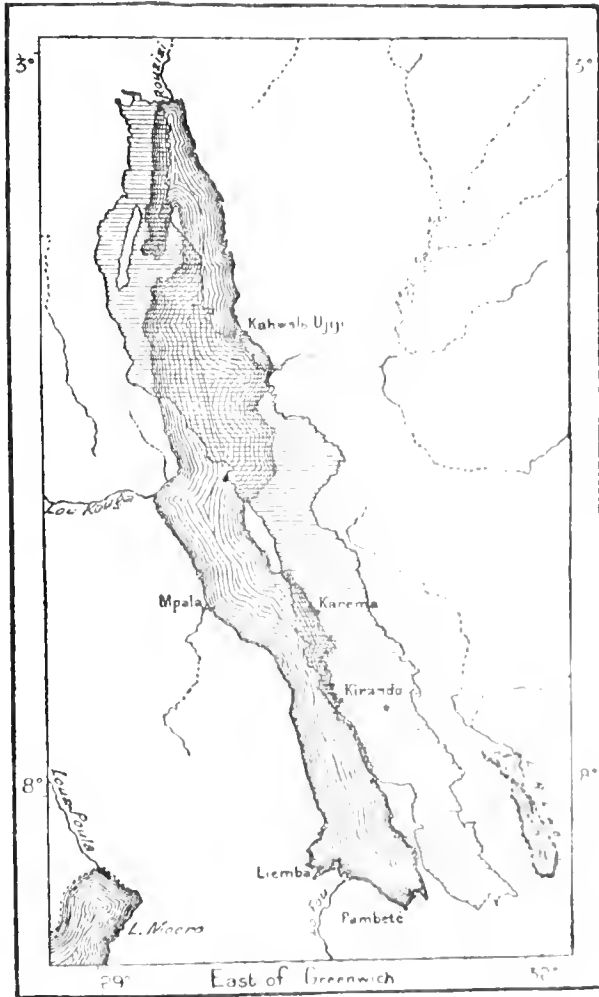
#### LAKE TANGANYIKA.

Tanganyika was long known to the Portuguese and Arabs, and is mentioned under various names in numerous documents of the eighteenth century, although generally confounded with Nyassa and other lakes. The three basins of Nyassa, Tanganyika and Nyanza are even merged in a single inland sea stretching north and south across thirteen degrees of latitude, and still figured as Lake U-Nyamezi on Erhardt and Rebmann's map of 1856. But this great Mediterranean has been resolved into its three constituent elements by the memorable voyage of Burton and Speke in 1858, and the subsequent explorations of Livingstone and Stanley.

Of all the Central African lacustrine basins, Tanganyika is now the best known, and a comparative study of Livingstone's map with accurate subsequent measurements shows that it had already been carefully surveyed by the first explorers. From Pambete Bay at the southern to the Ru-Sizi mouth at the

Fig. 208. —LAKE TANGANYIKA.

Scale 1 : 5,600,000



According to the last explorers



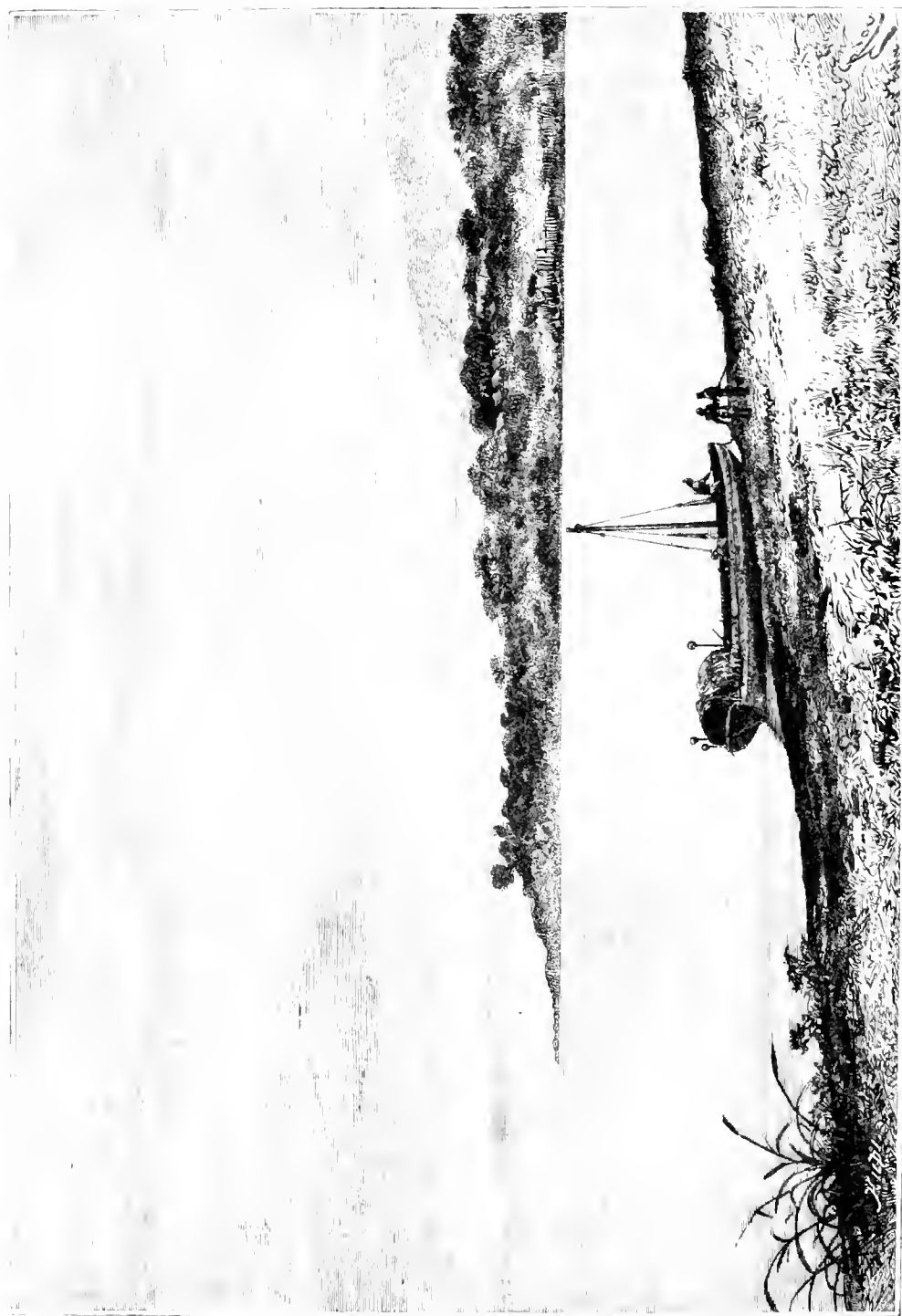
According to Livingstone

120 Miles

northern end, it has a total length of 380 miles, but a mean width of not more than 30 miles. It is of regular form, and nearly destitute of islands and other salient features, beyond the long U-Buari peninsula on the north-west coast. Tanganyika presents a striking resemblance to Nyassa, both basins being of the

same form, disposed in the same direction, of the same general aspect, and doubtless

FIG. 209.—VIEW TAKEN FROM MIALA, ON THE WEST COAST OF TANGANYIKA.



produced by the same geological causes. Unlike Bangweolo, a mere permanent

flooding caused by the back flow of waters obstructed lower down, it is a natural lacustrine basin, with deep water almost everywhere close inshore. At a distance of 2,000 yards off Cape Kabogo, Stanley failed to reach the bottom with a 200-fathom line, and near the same point Livingstone was equally unsuccessful with one 300 fathoms long, while Giraud recorded a depth of 350 fathoms off the Kurema coast. According to the reports of the Ujiji Arabs, the lake boiled up in 1862, emitting vapours and strewing the beach with debris resembling bitumen, some fragments of which were afterwards collected by Hore.

Tanganyika, that is, "Union of Waters," is fed by many affluents, mostly however of small size. The largest is the Malagarazi, which during the floods is no less than 1,700 yards wide at its mouth, and even in the dry season is nowhere fordable. Its farthest headstream rises in a lakelet within 330 miles of the east coast, being the point where the Congo basin approaches nearest to the Indian Ocean. The Ru-Sizi affluent from the north follows exactly the main axis of the lake, which was at first supposed to send its overflow through this channel to the Nile.

Storms are rare on Tanganyika, although it sometimes happens that the east winds, suddenly interrupting the normal currents from the west, sweep down the eastern slopes and violently agitate the placid surface of the lake. These sudden squalls are mostly to be feared during the rainy season, although the swell is generally heaviest in dry weather. The angry waters are much dreaded by the native boatmen, who, when rounding the headlands, never fail to pour out libations and make other offerings to the "noble devils" inhabiting them. Those who forget to present a black sheep and a white chicken to the demon of Mount Kabogo never return, a fierce gust from the mountain swooping down and engulfing them. The scenery, at once grand and picturesque, is pleasantly varied by Cape Kabogo on the east side, and the numerous other headlands breaking the line of verdant slopes, red sandstone cliffs, white limestone walls, granite domes and towers. The transparent waters abound in fish, such as the *sauri*, a great resource of the riverain populations, but the shell-fish fauna is specially remarkable, more than half the species occurring nowhere else. Some of the forms are essentially marine, being apparently allied to the fossil species of the Upper Chalk in Europe and North America.

The water of Tanganyika is perfectly fresh, a fact which alone made it highly probable that there must be an outflow. But when the Ru-Sizi was shown to be an affluent, and no emissary could be found at either extremity flowing in line with the main axis, as is the case with nearly all lakes, it was at first supposed that the inflow was carried off by evaporation. But it was soon discovered that the level was gradually rising, flooding old beaches and forests, and submerging rocks standing over 10 feet above the old level. This phenomenon seemed to indicate that there was no issue, until the observations of Cameron Hore and Thomson made it evident that the Lu-Kuga was certainly an intermittent emissary, conveying the overflow from the west coast to the Congo. After ascertaining the level of this river, which at the outlet is over 2 miles wide, but of a depth





surrounding grassy plains, studded here and there with clumps of trees, and roamed over by herds of buffaloes and antelopes.

Below Lake Lanji, the Lua-Laba, or rather the Congo, flows for some 60 miles through a still unexplored region. But from the confluence of the Lu-Ama, descending from the mountains skirting Tanganyika, it is now known to geographers throughout its whole course to the Atlantic. At this point it is already a great river, over 1,200 yards broad, and with a mean but not constant depth of 12 or 15 feet. It flows first westwards, then nearly due north to the equator, sometimes in a single channel, sometimes ramifying into several branches encircling wooded islands or sandbanks. Here it is joined on both sides by several large affluents, between two of which, the Lu-Fu and Kankora, it rushes in a narrow rocky bed over a series of seven cataracts, obstructing all navigation. These cataracts, where the stream crosses the equator and trends north-westwards, have been named the Stanley Falls, in honour of the daring explorer who discovered and successfully traversed them.

Below the falls the river, flowing at an altitude of 1,100 feet above the sea, expands into a broad placid stream offering no further impediments to navigation till it approaches the Atlantic. In this section it is joined by several great affluents, such as, from the south the Lu-Bilash and Lu-Lami (Lo-Mami), which rises near another Lo-Mami, flowing through the Sankuru to the Kassai; from the north the Aruwimi, rivalling the main stream itself in volume, and rising in the highlands to the west of Lake Muta-N'zige. Stanley supposed at first that the Aruwimi was a continuation of the Welle, discovered by Schweinfurth in the Niam-Niam country; but the subsequent journeys of Bohndorff, Lupton, Casati, and Junker have shown that the Welle lies farther north, and that the true headstream of the Aruwimi is the Nepoko, seen by Junker to the south of the Monbuttu territory. Below the Aruwimi confluence, the Congo, which here assumes an almost lacustrine aspect, is joined by the Loika (Itimbiri) and the Mo-Ngala, two other streams descending from the north, but too small to be identified with the Welle.

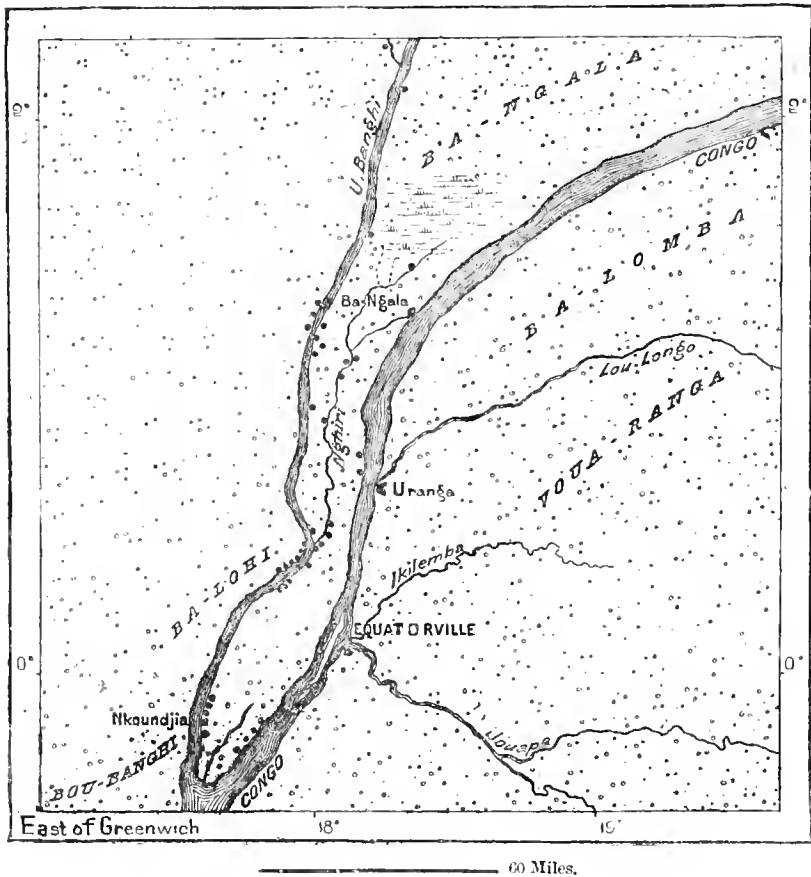
North and north-west of the Nepoko, Junker followed the curve of the Welle (Makua) to a point within about 110 miles of the Congo; but he was compelled here to retrace his steps without solving the Welle problem. In this region, however, he found the Welle swollen by the Mbomo with its Shiuko tributary, which may probably be Lupton's Kuta, the Bahr-el-Kuta of the Arabs. Beyond the Mbomo confluence the united stream is now known to continue its westerly course parallel with the Congo, ultimately joining the U-Banghi about 240 miles from the farthest point reached by Junker. The U-Banghi was itself ascended by Grenfell far beyond the probable junction, which however was not noticed by him either because he kept mainly to the right bank, or because the mouth of the Welle was masked by some of the wooded islands abounding in all these great waterways.

Beyond the Itimbiri confluence the Congo, ramifying into numerous channels with a total breadth at some points of 12 miles or even more, continues its

westerly course for 240 miles, during which it is joined by its largest affluents. From the east come the deep Lu-Longo with its Ba-Ringa (Lopori) tributary, the Ikalemba, and the Ruki (Bo-Ruki or "Black River"), all ascended by Grenfell to the head of their navigation. But however copious these affluents, they are all exceeded by the mighty U-Banghi, which comes from the north and north-east, collecting all the waters of the vast semicircle of plateaux, highlands, and water-partings stretching from the sources of the Shari to those of the White Nile in the Niam-Niam territory. Here it is also joined by the Nana, which rises on

Fig. 211.—THE CONGO AND U-BANGHI CONFLUENCE.

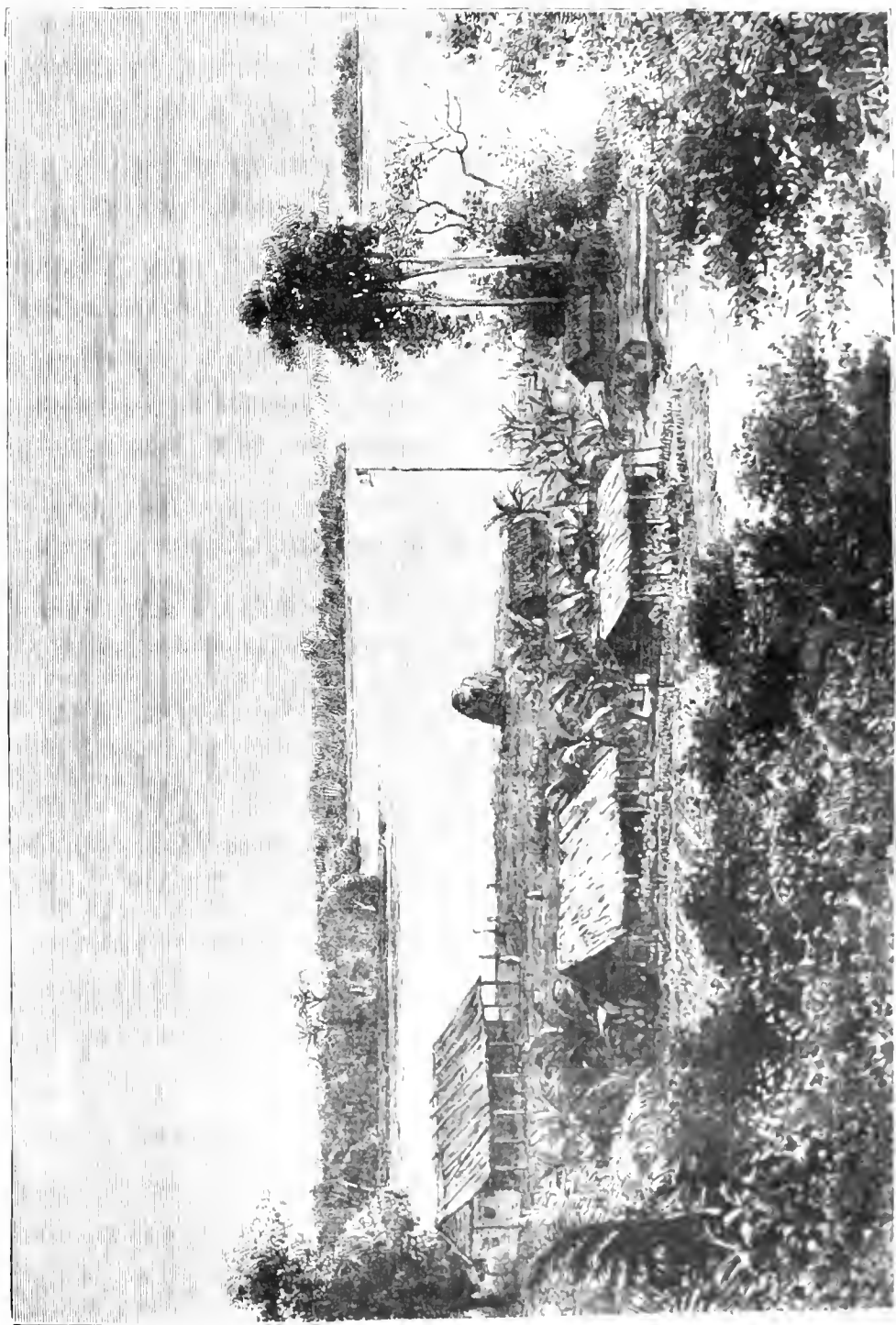
Scale 1:3,000,000.



the same uplands as the Benue, and perhaps also by the outflow from the *liva*, or "lake" in a pre-eminent sense, which has been so often heard of but has never yet been visited. According to Von François, the mean discharge of the U-Banghi is 260,000 cubic feet per second, which however seems an exaggerated estimate to M. Ponel, who resided eleven months at Nkunjia, on its lower course. The navigation is first interrupted over 300 miles from its mouth by the Zongo Falls, which even at high water arrested van Gelé's expedition in 1886, although surmounted two years previously by Grenfell.

It is probable that at some previous geological epoch, the united waters of the

Fig. 212.—THE U-BANGHI—VIEW TAKEN AT THE NKUNJA STATION.



Congo and U-Banghi were collected in a vast inland sea, of which some of the

deeper depressions are still flooded during the inundations. Such is Lake Matumba, on the left side, which at high water probably communicates with the still larger Lake Leopold II., draining to a southern affluent of the Congo.

West of the U-Banghi the Congo is joined from the north by the Likwalla (Likulna), the Mossaka (Bossaka) of the early French explorers, which, in the year 1884, was navigated by Jacques de Brazza and Pecile for nearly 200 miles. Near the Likwalla junction the Congo is also joined by the Bunga and the Alima from the north, the latter presenting if not the shortest at least one of the easiest overland routes from the coast to the middle Congo. Below the Alima follow the Nkheni and the Lefeni from the Ogoway waterparting, which reach the right bank of the Congo nearly opposite the confluence of the Kwa, which with its vast ramification of secondary streams constitutes the largest eastern tributary of the main artery.

The Kwa, continued far to the south by the Kassai, Sankuru, and Lo-Mami, has the same hydrographic importance on the left that the U-Banghi holds on the right bank of the Congo. Its farthest headstreams rise in the vicinity of the Cuanza and of the western affluents of the Zambese, where the Kassai flows first eastwards for 120 miles to a marshy plain where it is joined by the sluggish Lo-Tembwa from the little Lake Dilolo, which sends another emissary of the same name to the Liba headstream of the Zambese. Thus the two great arteries, Zambese and Congo, form a continuous waterway across the whole continent, which at Lake Dilolo offers an example of streams flowing to two different basins, analogous to that of the Cassiquiare, communicating both with the Orinoco and Amazons in South America. According to Livingstone, Dilolo stands at an altitude of 4,000 feet above the sea.

Just below the confluence of the Dilolo emissary the Kassai trends northwards, flowing from the plateaux to the central depression in a valley parallel with those of the Lu-Lua in the east, and of all the other streams rising in the southern part of the Congo basin. Beyond the depression which was formerly an inland sea, the Kassai turns north-westwards, receiving from every valley a fresh affluent, and at the Mbimbi Falls resuming its northerly course to the Lu-Lua confluence. From the east it is also joined by the Sankuru (Sankullu) with its Lo-Mami headstream, and from the southern plateaux by the Tenda, or Lo-Anghe, and farther down by the Kwango (Kwa-Ngo), that is, the Nzadi, Zaire, or Zezere of the natives, which the Portuguese traders often confounded with the Kassai itself, regarding it as the true main stream rising in a fathomless lake, one of the "Mothers of the Nile." Even on the maps of the present century the Zaire-Kwango was still represented as escaping from a great Lake Aquilonda.

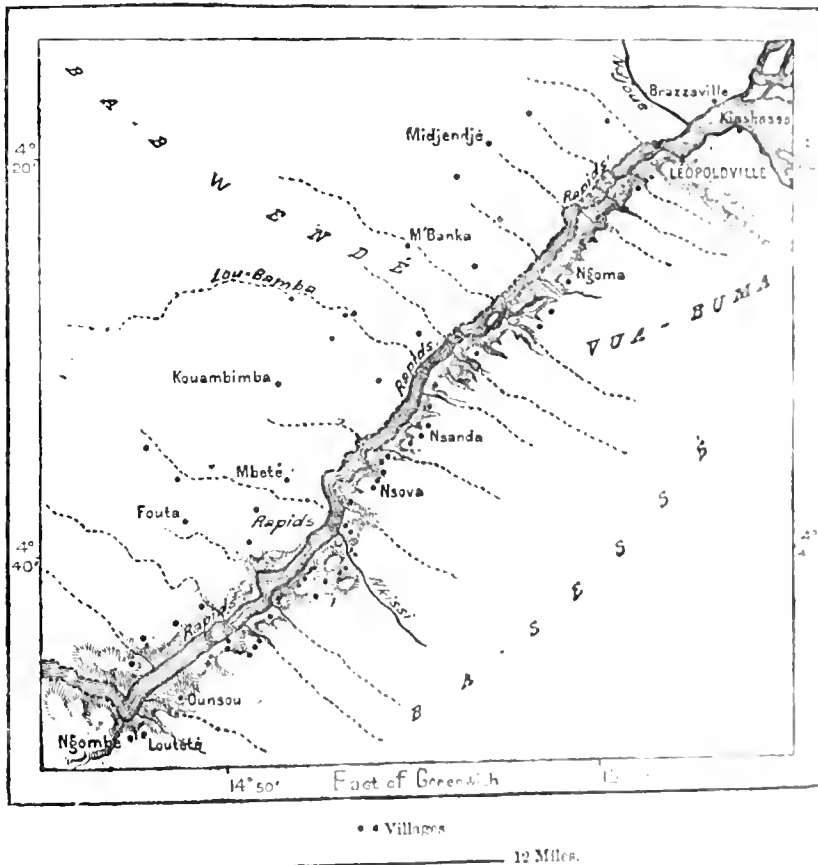
Like the Kassai, the Kwango rises at an altitude of 5,300 feet, but instead of trending eastwards it escapes from the plateau regions by following the shortest or northern course along the east foot of the western border ranges. But the decline across a space of five degrees of latitude is so great that this great river is quite unnavigable except for about 180 miles from its mouth. The Kaparanga Falls, one of the many rapids and cataracts obstructing the current, are no less than

160 feet high; but those of Gingunshi, the last of these impediments, are little over 3 feet, and might perhaps be surmounted by light craft. After describing a great curve to the west, the Kwango trends eastwards, receiving 7 or 8 miles above its mouth the Juma, a rival stream so large that Grenfell was unable to ascertain which was the more copious of the two. Nearly opposite its mouth it is joined by the navigable emissary from Lake Leopold, which forms a continuation of the Lu-Kenye, a river flowing parallel with the Sankuru.

Below these confluences the Kassai-Kwa collects its waters in a deep narrow

Fig. 213.—THE CONGO FALLS BELOW STANLEY POOL.

Scale 1 : 700,000.



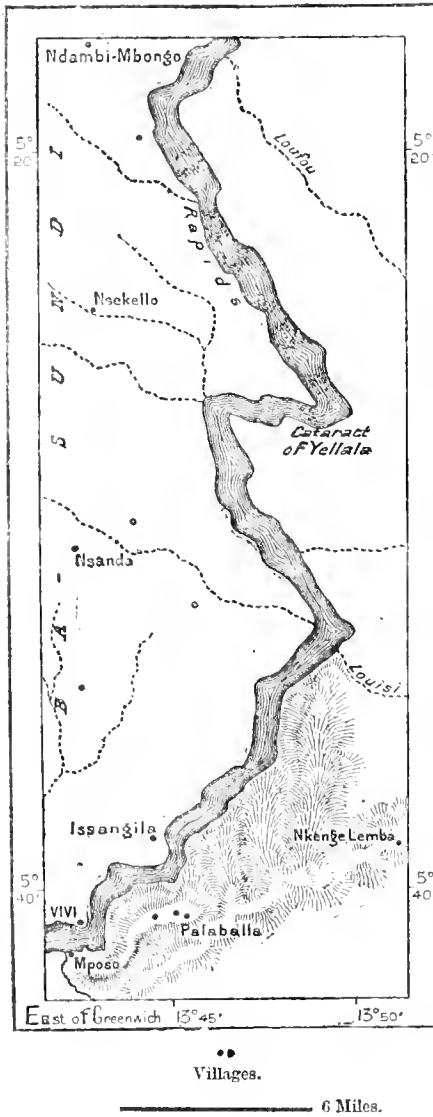
channel piercing the rocky hills by which it was formerly separated from the Congo. Here the current, at the narrows scarcely 500 yards wide, has a velocity of about 4 miles an hour and a depth of certainly over 120 feet. Even at Kwamouth, where it joins the Congo, it is scarcely more than 700 yards broad.

During its south-westerly course beyond Kwamouth the Congo, here from 3,000 to 4,500 yards wide, flows between ranges of hills which continually increase in elevation southwards, and which lower down recede to the right and left, the intervening space being occupied by the almost circular Nkuni basin. Below

known as Stanley Pool, which is about 80 square miles in extent, with a depth of 200 feet. On the north or right side this island-studded basin is skirted by a line of eroded rocks clothed on top with verdure, which from their resemblance to the chalk cliffs on the south coast of England have been named the Dover Cliffs.

Fig. 214.—LAST RAPIDS OF THE CONGO.

Scale 1 : 380,000.



A little below Stanley Pool begins the long line of rapids by which the navigation is entirely interrupted between the middle and lower course of the Congo, and to which Stanley has applied the collective name of Livingstone Falls. For a space of about 165 miles from Brazzaville to Matadi there follow thirty-two cascades besides numerous rapids, with a total approximate fall of 850 feet. Some are separated by intervals of smooth water without perceptible incline, while others are connected by continuous slopes, where the current rises and falls in long seething billowy waves. At several points the Congo, pent up between its rocky walls, is no more than 1,000 or 1,500 feet broad, and below Isangala it rushes through a gorge said to be scarcely 250 yards wide. Here the aspect of the stream changes incessantly. Everywhere sharp angular bends in the gloomy defiles, rocky cirques filled with boiling waters, cascades, opposing currents, raging whirlpools, vast liquid masses tearing along at tremendous speed, tranquil bays with unruffled surface, followed by fresh rapids, where the mighty stream again plunges into the wild gorges of its rocky bed. Here depth and velocity have to compensate for a broader channel, the whole body of the Congo rushing along in some places at the fearful rate of 30 miles an hour, with a depth of over 300 feet. In the region of the rapids it is joined only by a few rivulets from the north, and from the

southern plateaux by some larger streams, such as the Lu-Lu, Nkissi, Kwilu, Lu-Fu, and Mposo.

For some 30 miles below the Yellala Falls, last of the series, the fluvial valley still preserves the aspect of a defile hollowed out by the slow action of running waters. The jagged cliffs rise on both sides over 300, and in some places fully



THE YTHIA TALLS, LOWER CONGO.

J. TAYLOR





1,000 feet above the stream; in some places the water still flows over perceptible rapids, then at a sudden turn fills the so-called "Devil's Cauldron," an abyss 400 feet deep, encircled by vertical red clay walls, where the liquid mass is churned round incessantly, forming in some places secondary eddies 12 or 14 feet

Fig. 215.—THE DEVIL'S CAULDRON.

Scale 1 : 90,000.

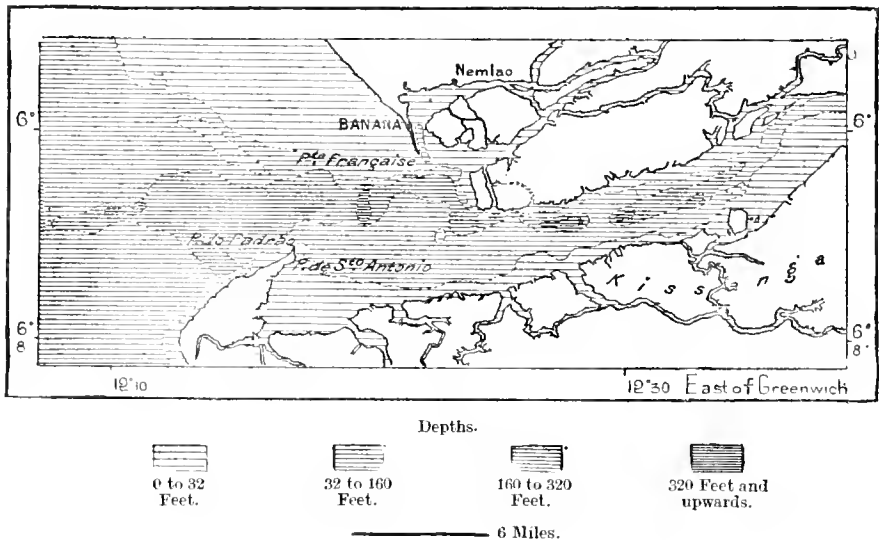


in diameter. Suddenly, after passing an island which forms a distance of 100 completely to block the way, the Congo enters its broad estuary, flanked with islands and sandbanks, where a granite rock on the left side, known as the "Devil's Stone," marks the former limit of the navigation for sailing vessels.

Towards the middle of the estuary, the distance from shore to shore exceeds 10 miles; but as it approaches the sea the current again contracts, the chief branch being less than 4 miles wide, while the waters on both sides ramify into a thousand tidal channels. At the mouth the distance from point to point is nearly 7 miles, and in some places no less than 1,000 feet deep. Here the Banana approach, nearly 20 feet deep at low water, runs athwart the stream in the direction from north-east to south-west in continuation of two sandy spits, on one side the peninsula of Banana, on the other Shark Point, or Cape Santo-Antonio. On most modern maps the most advanced headland south-west of this point is wrongly marked as the famous Cape Padrão, where Diego Cam, discoverer of the Congo, erected a marble column in 1482 to indicate the possession of this territory by Portugal. Cape Padrão is in fact identical with Shark Point, although the

Fig. 216.—THE CONGO BAR.

Scale 1 : 530,000.



column has disappeared, having apparently been thrown down by the Dutch in 1645. The fragments, venerated by the natives as fetishes, were recently discovered by M. Schwerin.

As indicated by the form of its mouth, the Congo is continued seawards in a north-westerly direction, being deflected northwards by the marine current from the south. Its influence is felt by seafarers several days before sighting the continent, the water being discoloured for a distance of 270 miles, while snags and tangled masses of vegetation drift with the stream for over 200 miles, and have even been met as far north as Cape Lopez and the island of Annobon. For 40 miles beyond the estuary the water is yellowish, and for 14 miles perfectly fresh on the surface of the sea. Along the Cabinda coast the swell is partly broken by the Congo waters, which for 14 miles beyond Banana Point continue to flow in a marine channel no less than 1,200 feet deep, skirted on either side by

rocky escarpments submerged only to a depth of 600 feet. The Congo Valley is thus continued for over 300 miles seawards, enclosed right and left by ridges or embankments, evidently consisting of refuse of all kinds deposited by the fluvial current in its conflict with the surrounding waters. Hence the Congo develops, not a delta as has been stated, but rather a submarine estuary, analogous to the alluvial formations by which the beds of the Rhine and the Rhone influents are continued under the surface waters of Lakes Constance and Geneva.

The tidal wave penetrating into the island-studded Congo estuary stems the fluvial current and raises its level, without, however, reversing it. Hence the mangroves, which fringe the banks of most other equatorial estuaries, are almost entirely absent from those of the Congo. The volume of fresh water, which has a fall of over 40 feet between the head of the inlet at Boma and its mouth on the Atlantic, is far too great and too rapid to be arrested at any point by the marine inflow. The first estimate of the mean discharge, calculated by Tuckey in 1846 at 1,540,000 cubic feet per second, coincides in a remarkable manner with those that have been made in recent times. Stanley found the outflow near Stanley Pool in the month of March, that is, at low water, to represent about 1,310,000 cubic feet, while the high-water marks on the rocks seemed to indicate a discharge of 2,300,000 during the floods. Subsequent more or less trustworthy estimates for the section between Noki and the mouth vary from 1,200,000 to 1,800,000 cubic feet per second, the discrepancy being explained partly by the variations in volume from year to year, partly to the uncertainty attending such experiments, owing to the great breadth of the island-studded estuary, where the fluvial current flows over the heavier tidal wave. The yearly quantity of sedimentary matter brought down by the Congo is estimated by M. Chavanne at 11,250,000,000 cubic feet, sufficient to build up an island 1,000 feet high and half a mile square at the base.

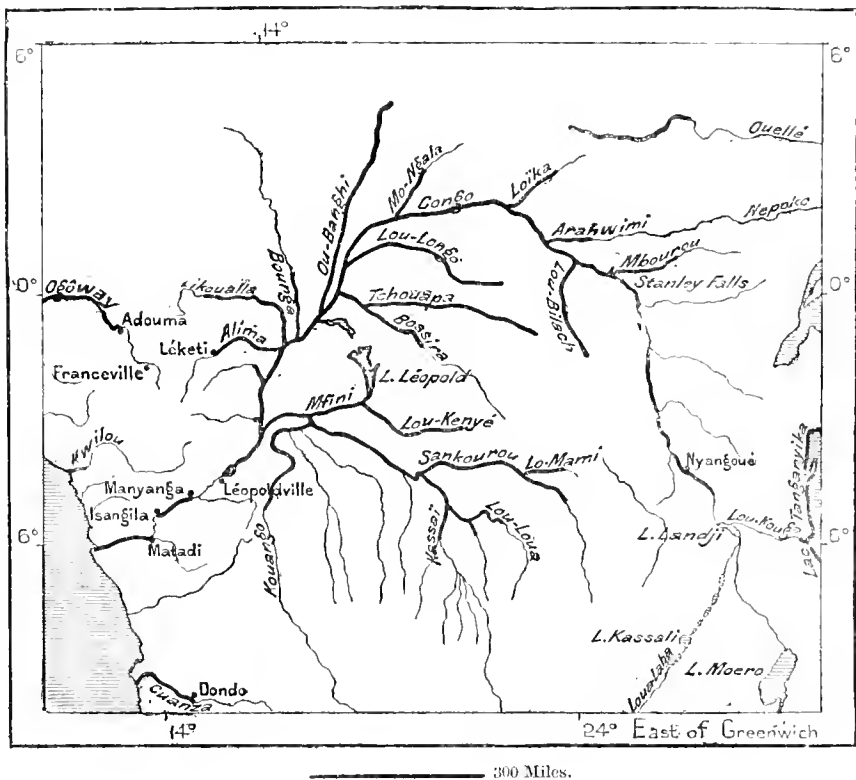
In any case the Congo certainly exceeds in volume all the rivers of the Eastern Hemisphere, and in the New World is surpassed by the Amazon alone, which like it rises in the equatorial zone, and is swollen by innumerable tributaries fed by the tropical rains. Both are characterised by a series of moderate floods and subsidences, corresponding to the oscillations of the chief affluents, which arriving at different periods tend to maintain the main stream at a certain uniform level. This, however, varies in the narrows of the regions of the falls as much as 30 feet, and at Vivi, below the last cataract, 14 feet. At its mouth the Congo presents two periods of high water, December and May, the corresponding lowest levels being in March and August. These two floods evidently follow the two rainy seasons of winter and spring, the latter being caused by the rise of the Aruwimi, U-Banghi, Alima, and other affluents on the right bank. The preliminary studies that have been made at the mouths of these and the southern tributaries, give a rough idea of their relative importance in this vast hydrographic system; but the exact share of each in the general movement of the Congo waters can be determined only by a long series of patient observations.

The navigable highways open to human industry in this basin yield in extent

to those of the Amazons alone. This vast system of natural channels is doubtless separated from the seaboard by the series of rocky rapids through which the Congo reaches its lower course; but a number of steamers have already been brought piecemeal across the country and put together on Stanley Pool, the magnificent outer basin for all the innumerable arteries leading north, east, and south into the very heart of the continent. Between the Livingstone and Stanley Falls the main stream alone, variously estimated at from 2,400 to 2,700 miles in length, presents an open waterway of at least 1,000 miles, besides 500 more in its lower and upper reaches, absolutely free from all obstruction. The Kassai, con-

Fig. 217.—LINES OF NAVIGATION SURVEYED IN THE CONGO BASIN.

Scale 1 : 20,000,000.



tinned eastwards by the Sankuru and the Lo-Mami, is accessible to river craft for 1,800 miles; the U-Banghi, the Tchouapa, Lu-Longo, and many others have also been ascended by steamers and barges for hundreds and hundreds of miles; and if to the rivers be added all the backwaters, lakes, and lateral branches, the total extent of navigable waters becomes almost incalculable. There is scarcely a single point of the basin, says Grenfell, over 100 miles from some station accessible by water.

But little advantage can be taken of these great facilities for inland communication until the regions of the Middle Congo are connected with the seaboard by

a railway and good carriage roads. So great are the difficulties of transport that a ton of merchandise, shipped at Antwerp for the Congo estuary at a freight of thirty shillings, is burdened with further charges of several hundred shillings before reaching the Aruwimi confluence. In 1899 the first section, 164 miles long, was opened, of a railway now in progress between Matadi and Stanley Pool, a total distance of 250 miles in the region of the lower rapids.

The direction and general course of the rivers is explained by the continental relief within the Congo basin, where the high land lies not in the central regions but in the neighbourhood of the seaboard. East of the Atlantic coast ranges stretches a central depression, which may be regarded as roughly limited west and north above Stanley Pool by the great bend of the main stream itself as far as the Stanley Falls, southwards by the Kassai and Sankuru rivers, and towards the east by the ranges skirting the west side of Lake Tanganyika. Within this vast space, which is probably of lacustrine origin, the Congo has room to develop an immense semicircle in a northerly direction. From all quarters of the compass streams converge on this central basin with remarkable uniformity, determined by the general slope of the land. North of Lake Lanji the Upper Congo affluents descend from the eastern and western ranges; on the south the Sankuru-Kassai tributaries flow all in parallel channels northwards; on the west the streams traversing the French possessions follow an easterly course to the right bank of the Congo.

The Atlantic coast ranges north of the estuary are continued southwards in the same south-easterly direction, and consist of the same granite, gneiss, and primitive schistose rocks, with a mean altitude of not more than 2,300 feet. From any of the summits commanding the Congo Valley on the south scarcely any eminences are visible on the horizon rising higher than the observer's standpoint. The whole surface is carved into deep gorges through which wind the converging streams, while the ranges rise gradually southwards. West of the Middle Kwango some of the crests exceed 3,000 feet, while about the headwaters the plateau itself stands at an elevation of considerably over 5,000 feet. But towards the east the surface assumes an almost horizontal aspect, and here lies the lacustrine parting line, which sends its overflow on the one hand through the Kassai-Congo to the Atlantic, on the other through the Zambese to the Indian Ocean. The greater part of the western region of hills and plateaux is overlaid with a thick layer of laterite formed by the disintegration of the argillaceous schists and other surface rocks, and presenting the appearance of many-coloured brown, red, and yellowish sands, through which the running waters percolate as through a sieve.

East of the basin the relief is less regular than on the west side, the border chains being disposed less uniformly, but at some points attaining a greater altitude. The amphitheatre of hills south of Lake Bangweolo culminates in the Lokinga peaks, which are said to range from 8,000 to 10,000 feet, and which are connected by lateral spurs with the Viane hills, pierced by the Lualaba and continued north-eastwards in the direction of Tanganyika. South of the Viane terraces the Lokinga mountains fall gradually north-eastwards, merging at last

the upland plains traversed by the Lua-Ngua affluent of the Zambese, and by the Tchassi-Tchambeze main branch of the Upper Congo. These plains, dotted over with clumps of trees, stretch away beyond the horizon without any apparent eminences higher than anthills.

Beyond Tanganyika the region of the waterparting between the Congo and the streams flowing to the Indian Ocean is continued northwards by hilly plateaux intersected by irregular ranges, rising to a height of nearly 7,000 feet between Lakes Tanganyika and Rikwah, and even farther north maintaining elevations of 4,000, 5,000 and 5,600 feet in the U-Nyamezi country. Still more lofty are the uplands stretching thence north-eastwards between Lakes Victoria Nyanza and Muta-N'zige, where rises the three-crested Mfumbiro, source of numerous headwaters of the Kagera main branch of the Upper Nile, and still farther north the Kibanga and Gambaragara Mountains seen from a distance by Stanley and others, and by them estimated at over 10,000 feet.

In the north-east the divide between the Congo and the White Nile headstreams is faintly indicated by a few undulations of the surface, or isolated hills rising 1,500 or 1,600 feet above the surrounding plains. A similar aspect is also presented by the Congo-Shari waterparting, so that the Central African depression would appear to have been continuous from the dried-up Congo lacustrine basin to the still flooded Tsad depression, which is known to be a mere remnant of a far more extensive inland sea. But whether the two basins are connected or not by intermediate plains, a part of the region is occupied either by isolated heights, such as Mount Mendif, or by less elevated continuous ranges. South of the Welle rises a group of isolated eminences to which the traveller Potagos has given the name of the George Mountains, and the course of the U-Banghi is confined between lofty walls, which seen from the lower reaches present the aspect of the Pyrenees as beheld from the plains of Gascony.

#### CLIMATE.

In the Congo basin the mean temperature, lowered on the seaboard by the influence of the cool marine coast stream, is never excessive, seldom rising above 91° F., even in the hottest months, from January to April. What renders the climate trying to Europeans is its great humidity rather than the tropical heats. In the lower Congo regions the glass falls at times as low as 53° F., showing an annual range of nearly forty degrees between the extremes of heat and cold. On the plateaux it is even more considerable, here travellers complaining of temperatures of 98° F. and upwards followed by cool and even chilly nights. Cameron found that water froze during the night on the plateaux about the sources of the Kassai, while Ponel recorded a fiery temperature of 109° F. on the banks of the U-Banghi.

The Congo basin lies entirely within the zone of the south-east trade-winds, which prevail in the interior wherever the normal direction is not disturbed by the trend of the mountain ranges. In the south they take a northerly direction,

following the parallel river valleys of that region, while in the west, as far as and beyond the U-Banghi confluence, they are similarly changed to south-western or even western monsoons. They prevail especially in the dry season, acquiring their greatest intensity in September and March, that is, in the months preceding the two rainy periods. Thunderstorms are developed chiefly in the east, so that their progress is most commonly from the interior towards the Atlantic seaboard.

As in the Gaboon and Ogoway valleys, there are two wet seasons, the first lasting from October to the end of December, the second and heavier from the middle of February to May, followed by an intensely dry period to the end of September, when scarcely a drop of water falls in a great part of the basin. But the rains diminish rapidly south of the Congo estuary, while increasing from the coast towards the interior. In the region of calms under the equator it rains throughout the year, although the principal wet season coincides here also with the winter months. In December, 1882, a violent thunderstorm was accompanied by a tremendous downpour of 4 inches within three hours, while in the disastrous years 1872 and 1874 the whole rainfall fell short of 8 inches, these remarkable droughts being followed by widespread famine.

The fogs and overcast skies, caused by excessive moisture in the wet seasons, are often intensified by the conflagrations of the grassy steppes, where the combustion is calculated by Von Danckelmann to represent a mass of 160 tons per square mile. Hence the quantity of scrub, brushwood, and vegetation of all kinds consumed by these fires must be estimated at millions of tons, filling the atmosphere with dense smoke for many miles in all directions.

#### FLORA AND FAUNA.

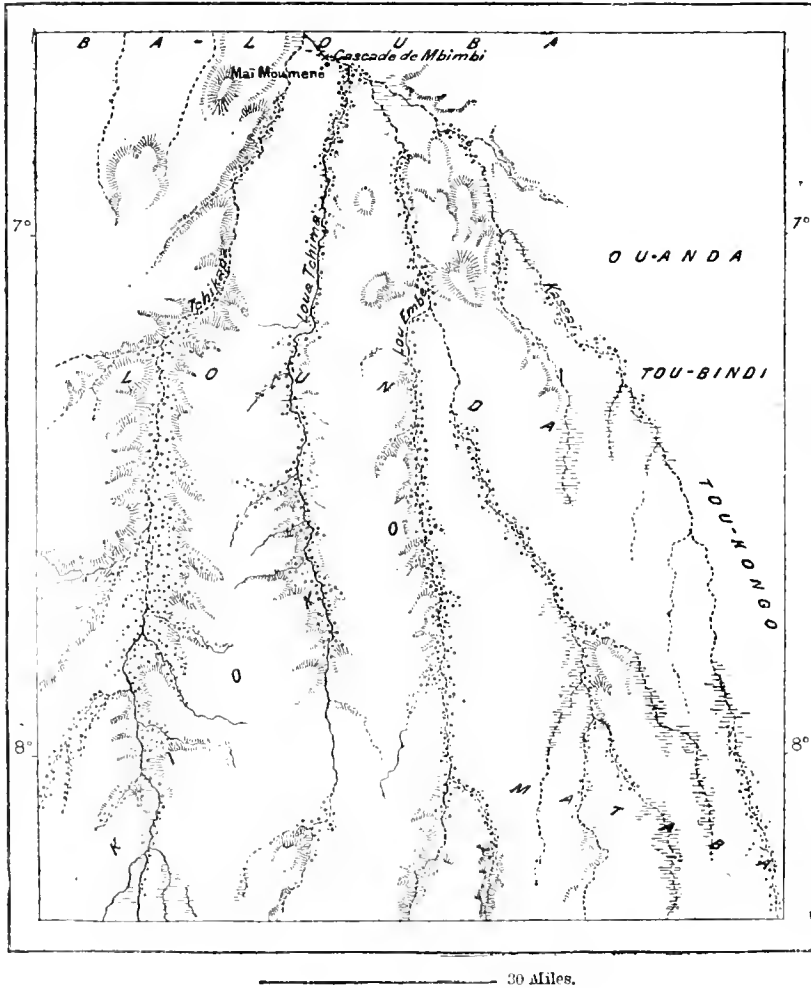
Nevertheless the general absence of trees and prevalence of tall grasses in so many parts of the Congo basin is to be attributed not so much to these conflagrations as to the lack of sufficient moisture to support extensive forest growths. The dense woodlands of the Gaboon and Ogoway regions are gradually replaced southwards by treeless savannahs, except along the river banks, which are everywhere fringed by narrow belts of timber, matted together by gigantic creepers. Even on the northern slope of the plateau forming the divide between the Congo and Zambese basins, the same contrast is presented between the treeless uplands and the exuberant vegetation of the riverain tracts. Here the more abundant moisture is carried off to the deep river gorges so rapidly that the rocky slopes and uplands are unable to support anything except a stunted and almost leafless scrub, or a scanty herbaceous vegetation, and are in some places even completely destitute of verdure.

But at the issue of the parallel fluvial valleys south of the Congo, the abundantly watered plains are covered with palms, baobabs, and other large forest growths. Nearly all the semicircle limited north by the great curve of the main-stream and south by the Kassai and Sankuru rivers, presents the aspect of a boundless forest interrupted here and there by swampy tracts, savannahs, and the

clearings round the villages. But the eastern uplands, like those of the west, show no continuous woodlands except in the bottom lands where are collected the streams descending from the hillsides, and in the districts of the equatorial zone exposed to a copious rainfall. Farther south nothing is seen except grassy tracts

Fig. 218.—FORESTS OF THE PARALLEL AFFLUENTS OF THE KASSAI.

Scale 1 : 1,600,000.



studded with clusters of trees like the English parks, long avenues of timber overshadowing the running waters, or else absolutely treeless steppe-lands.

Notwithstanding its vast extent, the Congo basin, presenting everywhere nearly the same climatic conditions, is characterised by a remarkable uniformity in its vegetable and animal species. Here the waterpartings in many places coincide with the limits of the botanical zones, and Schweinfurth and Junker found that north of the divide between the White Nile and the Congo the oil-palm, raphia, pandanus, kola-nut disappear, which are so characteristic of the central



regions south of that line. South of the Upper Congo headstreams the oil-palm is in the same way arrested by the waterparting towards the Zambesi, and in the Congo Valley by the first slopes of the Angolan plateaux.

The general equality of the climate, which has imparted a certain uniformity to the spontaneous flora of the Congo basin, has also enabled the inhabitants everywhere to introduce nearly the same cultivated plants, such as manioc, millet, the banana, tobacco, hemp, the pineapple, and sugar-cane. The coffee-plant, as well as the vine and orange, have been found growing wild in the central forest region on the banks of the Congo and Kassai.

The local fauna scarcely differs from that of the Atlantic seaboard in the Ogoway, Gaboon, and Cameroons districts. The elephant, rare in the hunting-grounds, is still very common in the greater part of the country; the manatee of the estuary is replaced higher up by multitudes of hippopotamuses, so numerous in some rivers as to impede the navigation. The chimpanzee inhabits the Congo forests as far north-eastwards as the limits of the oil-palm and raphia, so that he does not appear to penetrate into the Nile basin, nor southwards beyond the Lower Congo into Angola. In general the contrasts observed in the animal kingdom depend primarily on the distribution of plants. Thus the western savannahs, frequently wasted by fire, are almost uninhabited, containing neither quadrupeds, reptiles nor birds, while the eastern park-lands teem with animal life. In certain districts not yet visited by the hunter, the camping-grounds of travellers are surrounded by numerous herds of elephants, buffaloes, and antelopes.

#### INHABITANTS.

The Congo basin everywhere belongs to populations of Bantu speech, except in a few enclaves occupied by conquered aborigines, and in the north-eastern regions held by the Niam-Niam, Monbuttu, and other Negro peoples that have been wrongly classed with the Nuba group. On the other hand, the domain of the Bantu languages, which reaches southwards to Cape Colony, also extends in the north and north-east into the Nile basin, where it encircles the whole of Lake Victoria Nyanza.

But although the Congo populations possess linguistic unity, they differ greatly in their physical appearance and social usages. While most of the Bantus (Ba-ntu, A-ba-ntu, that is, "men"), appear to be clearly distinguished from the Negroes proper by their complexion, features, shape of the skull and carriage, the transitions are nevertheless extremely gradual in the Congo regions, where no pure types are found. The races have been constantly modified by incessant intermingling, while the common Bantu speech has remained nearly unchanged. Even within the historic period, conquering peoples have swept over the land, subduing and merging with the aboriginal elements. Tribed migrations and fresh ethnical groupings have also been caused by floods, famines, slave-hunting expeditions; and to these causes of confusion must be added the exogamous or extra-tribal marriages prevalent amongst many communities. The least mixed

peoples appear to be the dwarfish races variously known as Akkas or Tiki-Tikis, Vua-Twas or Ba-Twas.

Sufficient materials have not yet been collected to enable philologists to offer a satisfactory classification of the forty or fifty distinct Bantu idioms current in the Congo basin. The ethnical prefixes Ba, Ma, Ova, Wa, Vua, M, Tu, Mu, may doubtless indicate a certain relationship between the several groups so indicated, but such indications are far from sufficient to serve as the basis even of an approximate classification, so that all attempts in this direction can for the present claim nothing more than a provisional value.

At the same time, amid this chaos of ethnical elements, certain groups stand out more prominently as at present distinguished, either by their warlike character or commercial enterprise. Thus the Nyamezi to the east, and the Rua to the west of Tanganyika, serve as the chief forwarders of the international traffic between the eastern seaboard and the Congo basin. The Reggas also occupy a vast territory between the great river and Lake Mutu Nzigé, while the Ba-Lolo are widely distributed along the banks of all the affluents within the great curve described by the Congo north of the equator. The Tu-Shilonge, proud of their higher culture, hold the region where the Lu-Lua and Kassai enter the wooded plains, while the Lunda predominate about the southern affluents of the Kassai. Higher up follow the Kioko, enterprising traders, who push their expeditions from the Atlantic to the great equatorial lakes. On the Congo where it begins to trend towards the south-west, the most energetic and warlike people are the Ba-Ngala. Lower down the dominant nations are the Bu-Banghi, who give their name to the U-Banghi river, the Ba-Teke above Stanley Pool, the Wa-Buma of the Lower Kassai, and the Ba-Fiote, better known as the Congolese, from the Ba-Congo division of this group, who dwelt on the Lower Congo, and who have long maintained direct commercial relations with the Europeans. A characteristic trait of the eastern populations is their love of personal ornament, which is gradually replaced by amulets and fetishes.

Notwithstanding the assumed incapacity of the Negro peoples to develop extensive political systems, some large Bantu states have been founded within as well as beyond the Congo basin. At the arrival of the Portuguese, towards the end of the fifteenth century, both sides of the estuary as well as a large part of the southern plateau recognised a sovereign who resided in a capital now known by the Portuguese name of San Salvador. In the region watered by the Kassai affluents the political preponderance was long held by the Lunda nation, whose king, the Muata Yamvo, received the tribute of hundreds of vassals scattered over a territory as large as France. Towards the Lua-Pula headstreams stretched another great kingdom, that of the Muata Kazembe, who appears at the end of the last century to have enjoyed the supremacy over the neighbouring states. Westwards, also, the Upper Lua-Laba and Lu-Fira basins constituted the domain of the Msiri, for some time a still more powerful sovereign. Farther north, in the region where these various streams converge to form the Congo, the tribes were grouped politically under the common suzerainty of the King of Kassongo. At the same time the

political ties must necessarily be somewhat lax in these regions, where the communications are extremely difficult, and where the subject tribes may easily migrate from clearing to clearing. Hence these associations constitute rather a confederacy of petty autonomous republics than monarchical states in the strict sense of the term.

The arrival of the Arabs on the east and of the Europeans on the west coast has naturally tended much to bring about the work of dis-integration, by which the inland states have been gradually modified. Thus the intervention of the Portuguese ultimately effected the ruin of the Congo empire, notwithstanding its great political cohesion. In these historic transformations, stimulated by the presence of the foreigner on the seaboard, the elements of good and evil become strangely and diversely intermingled. While certain tribes, exposed to the raids of slave-hunters, relapsed into a state of profound degradation and savagery, the Congolese peoples generally became enriched by the development of agriculture. The introduction of maize, manioc, and other alimentary plants, is one of the chief benefits conferred by Europeans on the natives, more than compensating for the evils caused by the sale of firearms and spirits. Four centuries ago the Congo tribes lived mainly by hunting wild beasts and man himself, by fishing, or at most a rudimentary agriculture, whereas they now depend altogether on a well-developed system of husbandry, enabling them to increase tenfold without exhausting the fertile soil.

Had European influence in the Congo regions been represented by traders alone, the part played by them in the history of Africa could have scarcely been inferior to that of the Arab dealers. But before Stanley's journey across the continent their factories were confined to the low-lying region of the estuary, while the Zanzibar Arabs freely penetrated beyond Tanganyika, 800 or 900 miles from the Indian Ocean. Stanley, Cameron, and many other European explorers were fain to avail themselves of their services, but for which the Congo basin might still be an unknown region. When Stanley resolved to push westwards along the line of the main stream, he was accompanied as far as the Falls by the Arab Tippto-Tip at the head of seven hundred men, and it was by the co-operation of the same slave-dealer that he was afterwards enabled to organise the expedition for the relief of Emin Pasha in the Upper Nile valley. The Arabs above all others had benefited by the European discoveries in the Upper Congo basin, where their caravans for a time penetrated into the vast region lying between the Nilotic lakes and the Lo-Mami river. But their trading stations scattered over the country dealt not only in ivory and other local produce, but also and chiefly in slaves. Taking advantage of, and even fomenting the petty intertribal wars, they procured the captives on easy terms, distributing them as so much merchandise throughout the markets of the interior and even on the seaboard. But they reserved the young men, arming them with rifles, and thus maintaining bands of combatants irresistible to the surrounding populations, rudely equipped and lacking all political coherence. Hence the great material advantages enjoyed by the Arabs over their European rivals, who were compelled to deal with freemen and to

pay dearly for the transport of goods. Under these circumstances the Arabs

FIG. 219.—BANGALA, A STATION OF THE INDEPENDENT CONGO STATE.



had constituted in the Upper Congo regions a new empire, some hundred

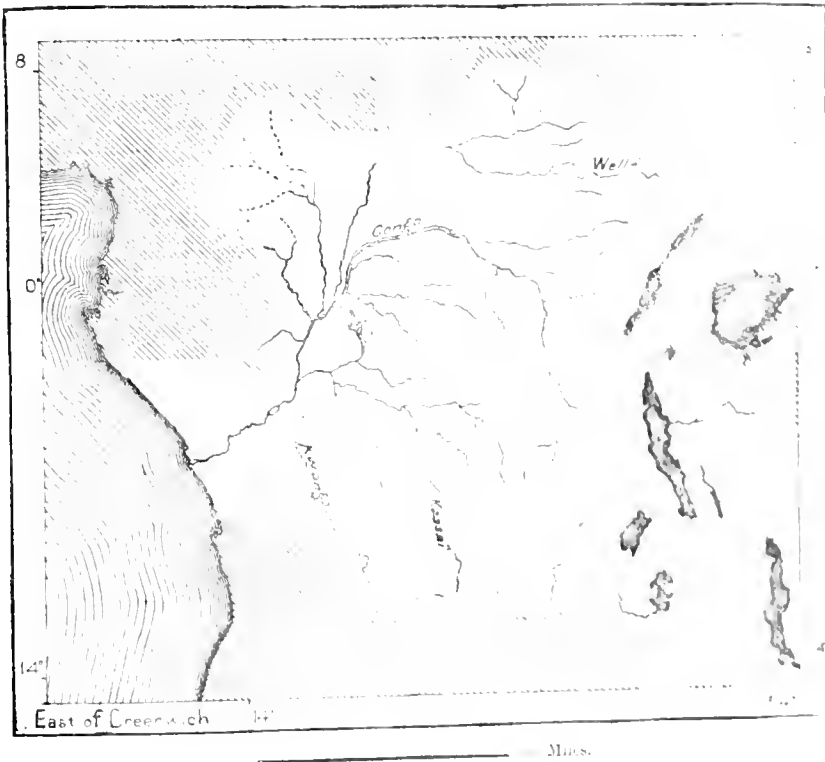
thousand square miles in extent, which was able to hold its ground for several years against the forces of the Congo Free State. But, possessing no seaport on the Indian Ocean, they could not possibly maintain their footing in the country after their ivory trade with Bombay was permanently interrupted.

#### THE CONGO FREE STATE.

The committee established under the presidency of the King of the Belgians after Stanley's expedition of 1878, for the purpose of studying the relations in the

Fig. 220.—ZONE OPEN TO FREE TRADE IN THE CONGO BASIN.

Scale 1 : 30,000,000.



Upper Congo, was soon transformed into the "Congo International Association," which, in 1885, assumed the title of "The Congo Free State." In 1890 it was placed under the sovereignty of the King of the Belgians, who, by will, bequeathed to Belgium all his sovereign rights in the state. It was, at the same time, declared inalienable, while Belgium reserved the right of annexing the whole territory in the year 1900.

The "Congo Independent State," as it is now called, is limited southwards by the estuary, and thence by a geometrical line drawn to the Kwango, some 12 miles north of the sixth parallel of south latitude, which parallel it thence-

forth follows to the Lu-Bilash, or Upper Sankuru river. At this point the conventional frontier, drawn across unexplored or little known regions, trends southwards along the Lu-Bilash valley towards its source on the plateau, beyond the Congo-Zambese divide, following the left side of Lake Bangweolo and the Lua-Pula valley to Lake Moero, and thence in a straight line to Cameron Bay, at the south-west extremity of Tanganyika. From this point it runs nearly due north along the west side of Tanganyika and east of Lake Muta-N'zige to 4° N. latitude, which has been adopted as its northern limit, westwards to the U-Banghi river, which, with the right bank of the Congo as far as Manyanga, separates the new state towards the west from the French possessions. Below Manyanga, a tortuous line passing south of the sources of the Niari and its affluents westwards to the coast between Cabinda and Banana, completes the vast periphery of the Congo State, which comprises most of the fluvial basin, or 802,000 square miles in superficial extent. The population, which is almost exclusively of Negroid Bantu stock and speech, was vaguely estimated in 1898 at about 30,000,000.

The rest of the Congo basin is also distributed amongst European Powers, Germany claiming all that part of East Africa confined north-west and south by Lakes Victoria, Tanganyika, and Nyassa, from this vast strategic base commanding at once the Upper Nile, Zambese, and Congo basins. France possesses the part of the basin lying between the Upper U-Banghi and Manyanga, while Portugal has officially occupied all the territory watered by the affluents of the Lower Congo and of the Kwango, south of the Free State. The latter Power has also annexed the whole of the former Lunda State, as well as most of the southern districts, including Katanga, bordering on British Central Africa.

All the Congo States alike, as well as those in the east draining to the Indian Ocean, between the Zambese and the fifth parallel of north latitude, are declared open to the trade of the world. All flags without distinction of nationality have henceforth free access to the whole seaboard of these territories, as well as to the rivers discharging into the surrounding waters. All differential charges are interdicted in respect of shipping, and all imported merchandise is free of entry and transit dues.

#### LUA-PULA AND LUA-LABA BASINS.

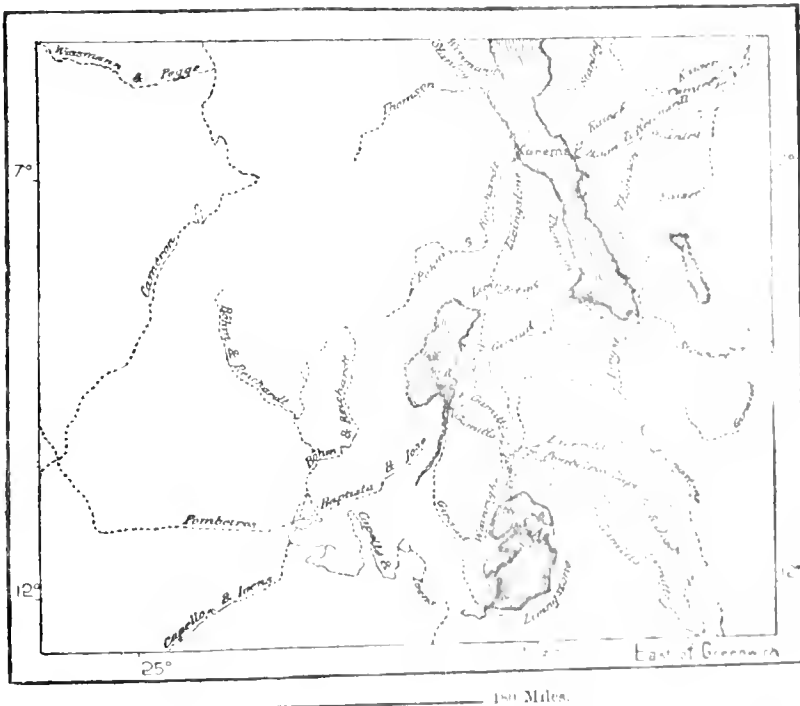
This region, in which the upper affluents forming the Congo descend more than half the fluvial slope from 5,000 to 2,000 feet, had already been visited by Lacerda towards the close of the eighteenth century. But his journey, like those of other Portuguese explorers, attracted little attention, and the country continued to be unknown until revealed to the outer world by Livingstone's memorable expeditions. This pioneer (1869-1873) was succeeded by others, such as Cameron (1874), Giraud (1884), Capello and Ivens (1885), whose itineraries have been connected at various points.

The plateau sloping southwards, on which rise the headwaters of the Tcham-bezi, is inhabited chiefly by the Bemba nation (Ba-Emba, Mu-Emba, Lo-Bemba, Vua-Emba). At the time of Giraud's visit, in 1884, the Bemba empire stretched north to Tanganyika, east to Nyassa, west to Bangweolo and Moero, the whole of the interlacustrine space north of the uplands held by the Wa-Biza being comprised within its limits. But since about 1890 this Bantu kingdom has been absorbed partly in the Congo State, partly in the conterminous territory of British Central Africa.

The capital of the Bemba state, situated on the plain north of the extensive marshlands traversed by the Tchambezi, comprised in 1881 some four or five

Fig. 221.—CHIEF ROUTES OF EXPLORERS IN THE UPPER CONGO BASIN.

Scale 1 : 10,000,000.



hundred huts, covering too large a space to be entirely enclosed by palisades, like the other villages. In these regions the villages take the names of the ruling chiefs, and the capital, at that time called *Ketunduru's*, is now known as *Murukutu's*. Incessant wars have to a great extent depopulated the country; hamlets are rare, and in some districts are exposed to the constant attacks of marauders, so that the wretched peasants prefer camping amid the anthills, and stealthily cultivating the land. When corn fails, they fall back on mushrooms, roots, bark, and boiled foliage.

The Ba-Bemba, physically one of the finest Bantu peoples, wear skins and bast, when unable to procure woven goods from the Arab traders, and all delight

in elegant tattoo designs and elaborate head-dresses, built up with clay and terminating in coronets or sharp radiating points. They are skilful craftsmen, but subject to the caprice of their rulers, who mutilate slaves and freemen alike, and surround themselves with bands of musicians, composed almost exclusively of eunuchs, the blind, and maimed. The approach to most villages is marked by grinning skulls stuck on tall stakes. The symbol of the royal power consists in red glassware covering a great part of the king's person, and imported by Nyamezi traders, who take in exchange elephants' tusks of small size, but of extremely fine texture. These dealers have introduced many usages of Arab origin.

#### THE WA-BIZA AND KISSINGA TERRITORIES.

The Wa-Biza and Ilala, who had maintained their independence against the Ba-Bemba in the islands and morasses of Bangweolo and neighbouring rugged upland valleys, constitute a group of petty republican states, which have all acknowledged the British protectorate since the year 1893. This district teems with multitudes of large game, the very horizon being shut out in some directions by vast herds of many thousand antelopes. South of the marshlands lies the village of Tehitambo, in the Ilala territory, where Livingstone died on May 1st, 1873.

On the return of the caravan which conveyed the remains of Livingstone to the coast, the western shores of Bangweolo were held by the Wa-Biza, who, however, were afterwards either exterminated or reduced to a state of vassalage by the Vua-Ussi conquerors from the south. But the progress of these intruders was arrested by the valiant Vua-Kissinga nation, which held its own on the north side of the lake till the advent of the English in 1894 saved them from further molestation. On an eastern affluent of the Lua-Pula in this district are situated the copper mines which have been worked from time immemorial. On their return from the interior in 1885, the explorers Capello and Ivens endeavoured in vain to cross the Lua-Pula and penetrate into this mining district. West of the river they found the whole country wasted by wars, and in the boundless forests of Kaponda had to support themselves on the produce of the chase.

#### THE FORMER MUATA KAZEMBE'S KINGDOM.

The Lunda territory south of Lake Moero, not to be confounded with the Lunda empire of the Muata Yamvo in the Kassai basin, constituted about the middle of the century a powerful kingdom ruled over by the Muata Kazembe, that is, "Imperial Lord," heir of the ancient Morupwe kings, who were regarded in the sixteenth century as the most powerful potentates in South Africa. But when visited in 1831 by Monteiro and Gamitto he had already lost all control over his eastern neighbours, the Wa-Bemba, and at the time of Livingstone's visit in 1867 several other provinces had become detached from his empire. Then he became a mere vassal of his old Ba-Bemba subjects, and in 1891 the British protectorate

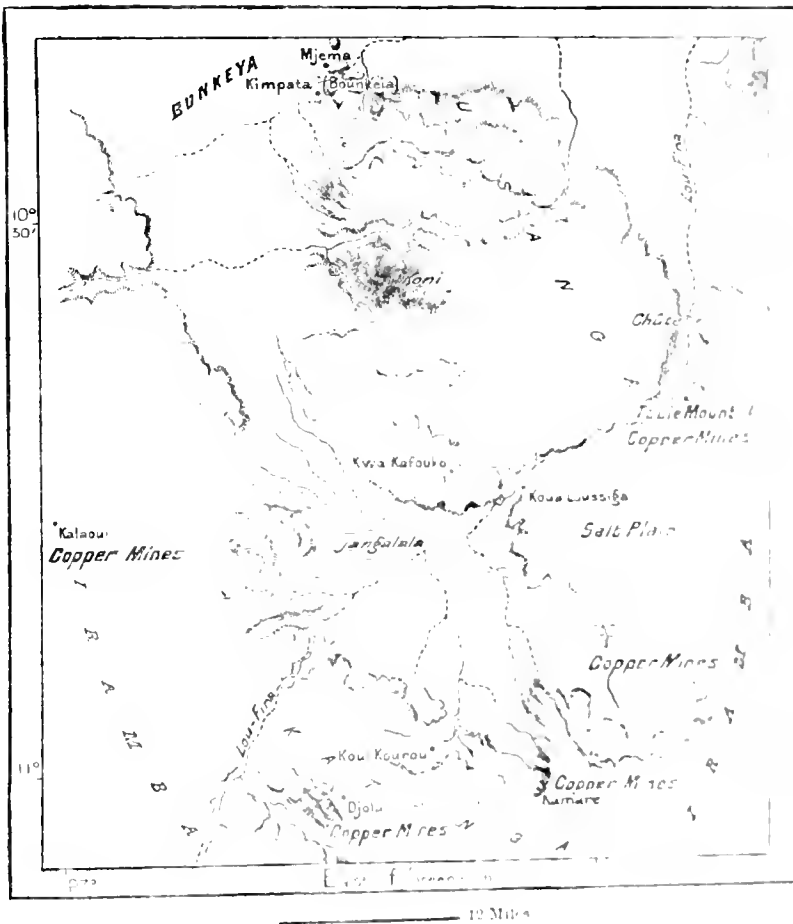


was extended to the whole of his territory, which now forms part of British Central Africa. There is no reason to regret the change, as the Kazembe was one of the most ruthless tyrants in Central Africa. Heads stuck on stakes round the royal enclosure, and numerous mutilated wretches in attendance on the sovereign, served to warn his subjects of his terrible presence.

When visited by Lacerda in 1798, the Kazembe's capital, which formerly changed with every reign, was situated north of the Mofwe, a southern continua-

Fig. 222.—BUNKEYA AND THE COPPER-MINE REGION.

Scale 1 : 750,000.



tion of Lake Moero. The present *Kazembe*, as it is called from the king's title, lies south of the same basin, near an island inhabited by the Messias, the descendants of the aborigines conquered by the ancestors of the Kazembe. Lacerda, one of the first martyrs of science in Central Africa, died in 1798 at N. (Lucenda) near Kazembe.



and salubrious country, perhaps destined to become a sanatorium for European travellers.

Msiri's capital, *Bunkeya* (*Unkea*, *Kimpata*), was situated near a small western affluent of the Lu-Fira, and was at one time a great ivory market. The king, who bore the curious Portuguese title of Maria Segunda, was a cruel despot, like his brother, the ruler of Kaponda. But their sway came to an end in June, 1892, when Captain Stairs, at the head of a Belgian column, occupied Bunkeya, and incorporated the whole region in the Congo Independent State.

The population of Garangaja, as Msiri's kingdom was called, comprises diverse elements collectively known as Ba-Yeke or Ba-Yongo, and specially noted for the great deference they pay to their women. The men are great hunters, always clad in skins, and armed with rifles from Angola and sharp-pointed assegais embellished with copper wire. This metal occurs in great abundance, generally under the form of malachite, the chief mines being those of *Katanga*, a three days' march to the east of Bunkeya. But contrary to the statements made by the Arabs to Stanley, there is no gold in the mining districts, although copious sulphurous springs are found in many places.

#### THE FORMER RUA KINGDOM.

Livingstone refers frequently to the country of the Rua people, giving fabulous details and a geographical relief of the land very different from the reality. Subsequent explorers have ascertained that the Lake Kamolondo mentioned by him as traversed by the Lua-Laba has no existence; but the string of lakes forming the Lua-Laba takes the collective name of Kamolondo, and forms the eastern boundary of the Rua territory. This region, which was traversed from north to south by Cameron, formed the empire of the Kassongo, and comprised the whole space stretching north and south between Garangaja and the tract formerly held by the Arabs north of Lake Lanji. The Kassongo's territory was bounded west and east by the Lo-Mami river and Lake Tanganyika, but did not include the U-Sambe (U-Sambi), who dwell west of the Lo-Mami, who, however, paid tribute both to the Kassongo and to their western neighbour the Muata Yamvo. But for all that they did not escape the raids of the Arab or half-caste Portuguese slave-hunters, who carried off their women and burned their villages.

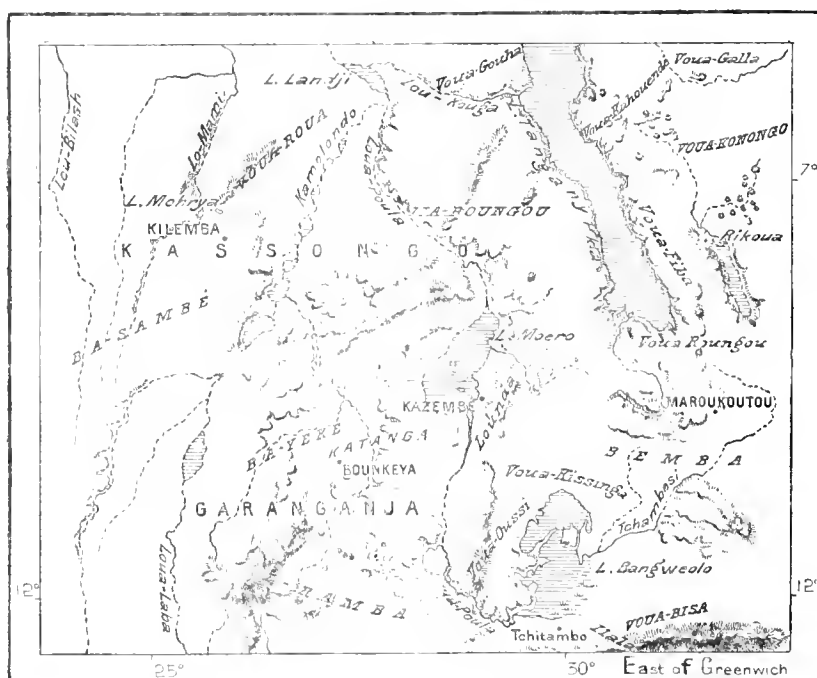
The kingdom was divided into districts, governed each by a *kitolo*, who was either a hereditary chief or a "captain" appointed for a term of four years. If satisfied with their services, the king promoted them to a higher charge; if not, they were mutilated, the royal usages being no less cruel here than in the neighbouring states.

In U-Rua two punishments alone were recognised—mutilation and death, and near the king's residence were recesses filled with human heads. The sovereign was looked on as a god, and the most powerful fetish represented the founder of the dynasty. This fetish, kept in a forest, which not even the wizards might enter, was supposed to have for wife the king's sister, who with her brother had alone the

right to consult the tutelar deity in cases of emergency. In virtue of his divinity, the ruler of U-Rua was also theoretically the husband of all his female subjects except his mother, while in virtue of their royal blood his own sons were allowed to plunder the people at pleasure. At the ruler's death a number of his women were doomed to accompany him beyond the grave, which was dug in the bed of a river diverted from its course. Here was first killed the second wife, whose duty it was to watch at the feet of the dead; then the bottom was covered with living women, on whom was laid the corpse, after which, on the closed pit, were massacred a number of slaves, and the river was restored to its bed, so that the last resting-place of the monarch might be for ever concealed from mortal eye. The Arab slave-traders

Fig. 224.—CHIEF TRIBES IN THE UPPER CONGO BASIN.

Scale 1 : 10,000,000.



180 Miles.

had already reached the Rua State before their overthrow in 1893, and that event was followed by the annexation of Rua itself to the Congo State.

The U-Rua country is one of the richest in the interior of Africa. The soil is extremely fertile, and in the mountains are found deposits of iron, cinnabar, silver, and even rock-oil. Most of the natives are distinguished by their intelligence and skill as craftsmen, and Cameron describes a native cabin which would be a work of art even in Europe. Much artistic taste is also displayed in the marvellous head-dresses, the endless varieties of which reveal the special character of each individual. Each clan has also a special animal, whose spoils supplied the gala robes worn when they presented themselves before their sovereign.

*Kilemba* (*Kwihata*, *Mussamba*), capital of U-Rua, lying on one of the string of lakes traversed by the Lua-Laba, is merely a large village, defended by a strong palisade. In this country, formerly exposed to plundering expeditions of the secondary chiefs, of the slave-hunters, and even of the king himself, most of the villages are hidden away in the thickest part of the forests, and can be approached only by creeping on all fours under a long avenue of interlaced foliage terminating at a gateway defended by a *chevaux-de-frise*. The people also took refuge in the lakes, such as that of Mohrya, 24 miles north-west of Kilemba, where are several lacustrine groups, whose inhabitants approach the land only to cultivate their fields and graze their goats. On Lake Kassali they utilise the floating islands of matted vegetation, on which they plant bananas and dwell with their flocks and poultry. But in the Mitumbo and Kunde Irunde hills, skirting the west and east banks of the Lu-Fira river, thousands of natives dwell in spacious caves, some of which are 20 miles long, forming, with their innumerable ramifications, vast underground cities occupied by whole tribes of troglodytes with their domestic animals.

#### TANGANYIKA.

East of Lake Tanganyika the most extensive state is U-Nyamezi (U-Nyamwezi), which is mentioned by the early Portuguese writers under the name of Munemugi, or "Land of the Moon," but is now (1898) completely absorbed in the German territory of East Central Africa. It occupies most of the lands watered by the Malagarazi and its affluents, and in the north-east it stretches beyond the divide into the Victoria Nyanza basin. U-Nyamezi is one of the pleasantest regions in Africa, diversified with low undulating hills, wooded or grassy, and dotted over with numerous villages, all surrounded with gardens, rice plantations, and well-cultivated farms. But the western districts are mostly swampy and insalubrious, especially after the rainy season.

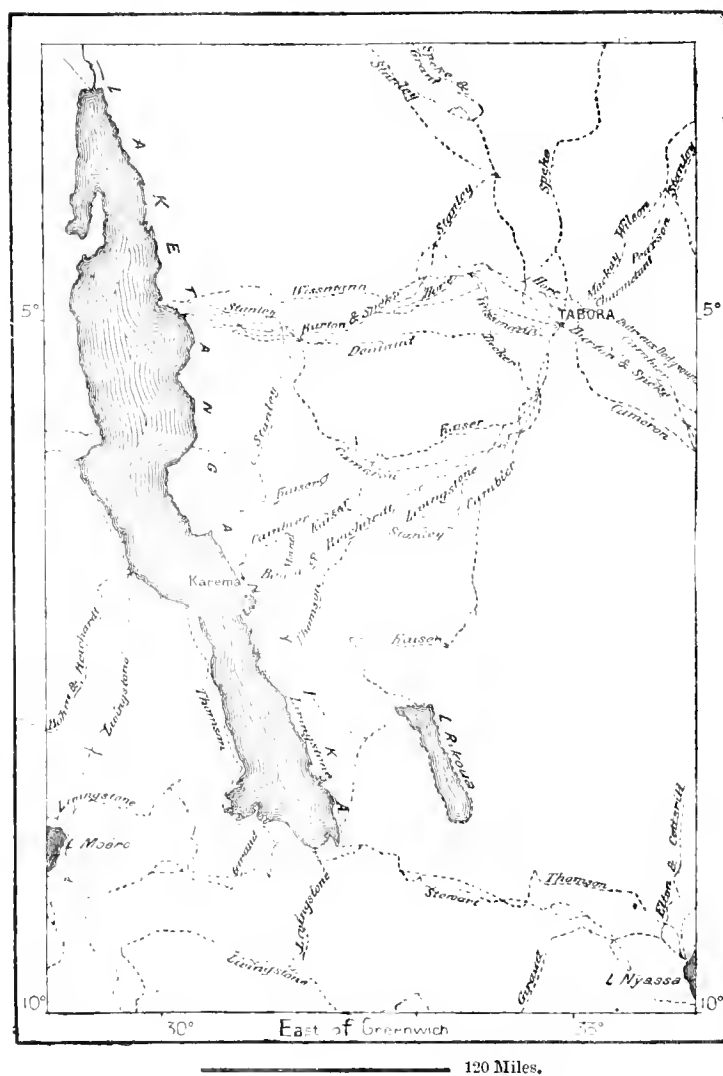
The best-known territory in U-Nyamezi is U-Nyambiembe, which is watered by the Gombe, chief affluent of the Malagarazi. Here pass most of the caravans between Tanganyika and the coast; here Speke, Burton, Grant, Stanley, Cameron, and since then many other pioneers of African exploration, have resided for weeks and months together; here also several religious missions have been established, and Germany, which has become the suzerain power, is now everywhere represented in the country by political administrators.

The Vua-Nyamezi, as all the local tribes are collectively called, appear to be related to the people of Garangaja, although enjoying much higher culture than their neighbours, thanks to their long-established commercial relations with the Arabs. Nevertheless most of them still preserve the old customs of their fathers, otherwise disfigure themselves by extracting the two lower incisors, or else filing them to an edge, and distending the lobe of the ears by the use of wooden discs, shells, or bits of ivory. They generally shave a part of the head, dressing the rest of the hair in numerous radiating points which are styled by

means of interwoven vegetable fibre. Formerly the native garb was made of bast, which has now been almost everywhere replaced by woven fabrics imported from Zanzibar. Brass wire armlets and greaves, as well as glass beads, are much worn,

Fig. 225.—CHIEF ROUTES OF EXPLORERS IN THE CONOO BASIN EAST OF TANGANYIKA.

Scale 1 : 6,000,000.

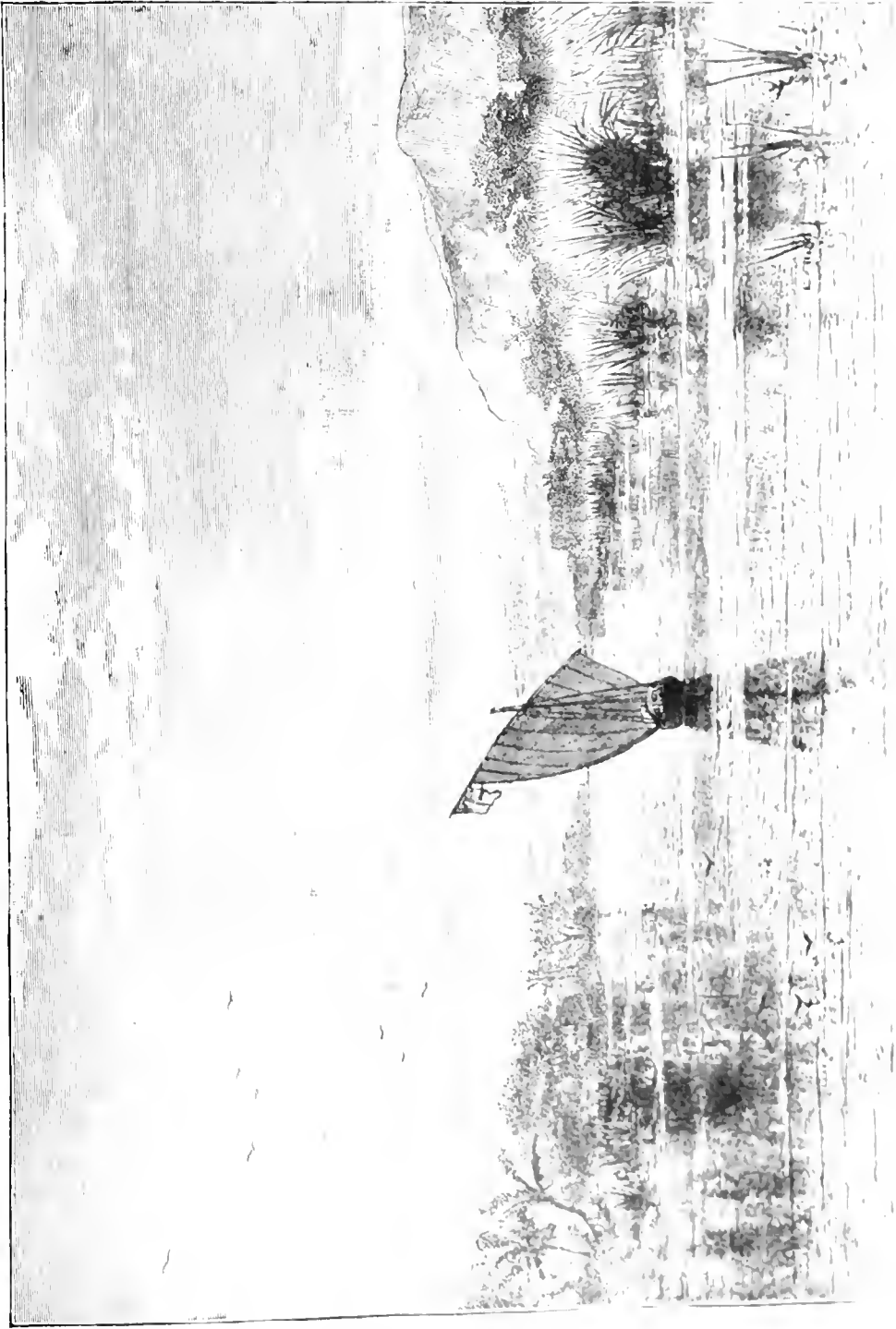


and to these the chiefs add two long ivory sheaths, which they elash together to encourage their men on the battlefield.

In the conduct of domestic affairs the division of labour is complete, the men looking after the flocks and poultry, the women attending to the gardens and fields. In some districts one of the twins is killed and replaced by a calabash in the cradle of the survivor. The inheritance passes, not to the nephew, as amongst so many tribes where matriarchal customs are partly maintained, but to the direct issue, and in preference to illegitimate children.

At the time of Stanley's first journey in 1871 the Arabs were still very powerful

Fig. 226.—THE LU-KUGA EMISSARY OF TANGANYIKA.



in U-Nyamezi, but, having abused their strength

natives rose against them, and a Negro empire was founded by the famous Mirambo, the "black Bonaparte," whose military genius has been the theme of all travellers. After his death in 1887 the state was broken up, a large part falling to the protégés of the Arabs, some of whom were of true Semite stock; but the majority were half-castes from Muscat or Zanzibar, who employ mercenary troops imported from Baluchistan and other places. Later the whole of U-Nyamezi was incorporated in the German East African possessions, and since 1890-94 has been administered by European officials.

The town, or rather group of villages, most frequently mentioned in the reports of travellers and missionaries is *Tabora*, the *Kazeh*, or "Residence," of the first English explorers. It stands at an altitude of over 4,000 feet, or very nearly on the highest land of the waterparting at the converging point of all caravan routes between the sea and the great lakes. Tabora, which is surrounded by extensive plantations of batatas, yams, rice, maize, and other cereals, comprises several *bomas*, or palisaded enclosures, which with numerous outlying groups of huts has an estimated population of five thousand Wa-Nyamezi, Arabs, Zanzibari, and Baluchi.

On the surrounding plain to the south and south-west are scattered several other villages, such as *Kui-Kuru*, or the "Royal Village," with five concentric enclosures, where resides the Mtemi, who rules over U-Nyamezi under the protection of the Arab agent at Tabora. All these groups of carefully built huts are well kept and surrounded either with a hedge of poisonous arborescent euphorbia, or else in the new style, with a rampart of thick walls. Of late years some European buildings, such as schools and chapels, have sprung up both in the Tabora district and in *U-Yui* and *U-Rambo*, to the north-east and north-west. According to Wilson, from four thousand to five thousand natives dwell within the strong enclosure of U-Yui; and *Serombo*, on a northern affluent of the Malagarazi, is also a large place with a population estimated at about five thousand. As in most other parts of Africa where Islam and Christianity come in contact, the former exercises most moral influence, although recording fewer proselytes, and although the Arab traders show no zeal for the conversion of the natives.

In the U-Gonda district south of Tabora the Germans had established a station, where they hoped sooner or later to create a centre of effective political control for the whole region stretching east of Tanganyika. Their first post was founded in 1881 near the village of Kakoma in the Vua Galla country, but was soon after removed to Gonda in the Vua-Gonda territory. In return for a few charges of gunpowder the local "sultan" had granted them a share of the royal power. Nevertheless, they failed to prevent human sacrifices, and the station was for a time abandoned. But the district was afterwards re-occupied, and the whole of the country, as far as Tanganyika, is now (1898) under German administration.

In the Malagarazi valley west of U-Nyamezi one of the most dreaded predatory tribes were the Vua-Tuta, whose territory was carefully avoided by caravans, which here turned north to the populous town of *Serombo*. But in this region the largest

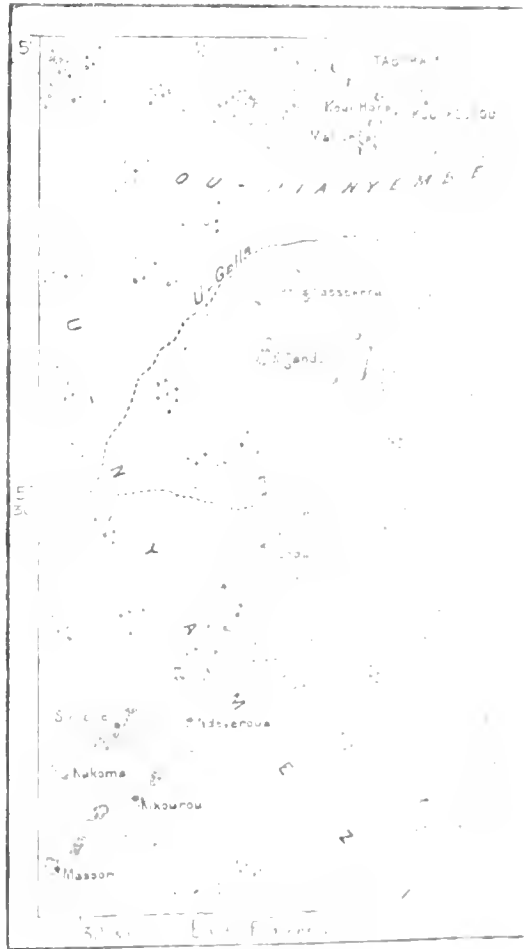


domain is that of the Vua-Hha, which extends from the Lower Malagarazi to the uplands where the Alexandra Nile (Kagera) has its rise. These warlike shepherds are distinguished alike for their fine physique, intelligent expression, and artistic taste. They make an excellent butter, which does not become rancid like that of the other pastoral tribes of the plateau, and which is exported to the remotest parts of U-Nyamezi. Their Vua-Tuzi neighbours, said to be intruders from the north and akin to the Wa-Huma of Lake Nyanza, are noted for their tall stature, regular features, and light complexion. They are regarded by some authorities as of Galla stock, while others affiliate them to the Vua-Hha. Like the Nuers of the White Nile, they have the faculty of standing for hours together on one leg, after the fashion of wading birds. At present the Vua-Tuzi are employed by the Tabora Arabs to tend their flocks, receiving half the produce in return.

The Lower Malagarazi Valley is occupied by the U-Vinza and U-Karaga countries, the former of which is famous for its salt-pans, which supply the whole region from the southern shores of Tanganyika to the Upper Congo and Lake Victoria. The great market for this salt, as well as for ivory, and all the merchandise imported from Zanzibar and Europe, is the port of *Kahwele* (*Karele*), better known by the name of *Ujiji*, which is properly that of the district. But this famous place, which at one time gave its name to the whole district, is now a mere group of hamlets situated on the south side of a low ridge, where the view is commanded of the surrounding coast, with its tall palm-groves. *Ujiji*, which is the residence of the district administrator, is an unhealthy place that has repelled the Europeans.

FIG. 227. THE U-NYAMEZI DISTRICT.

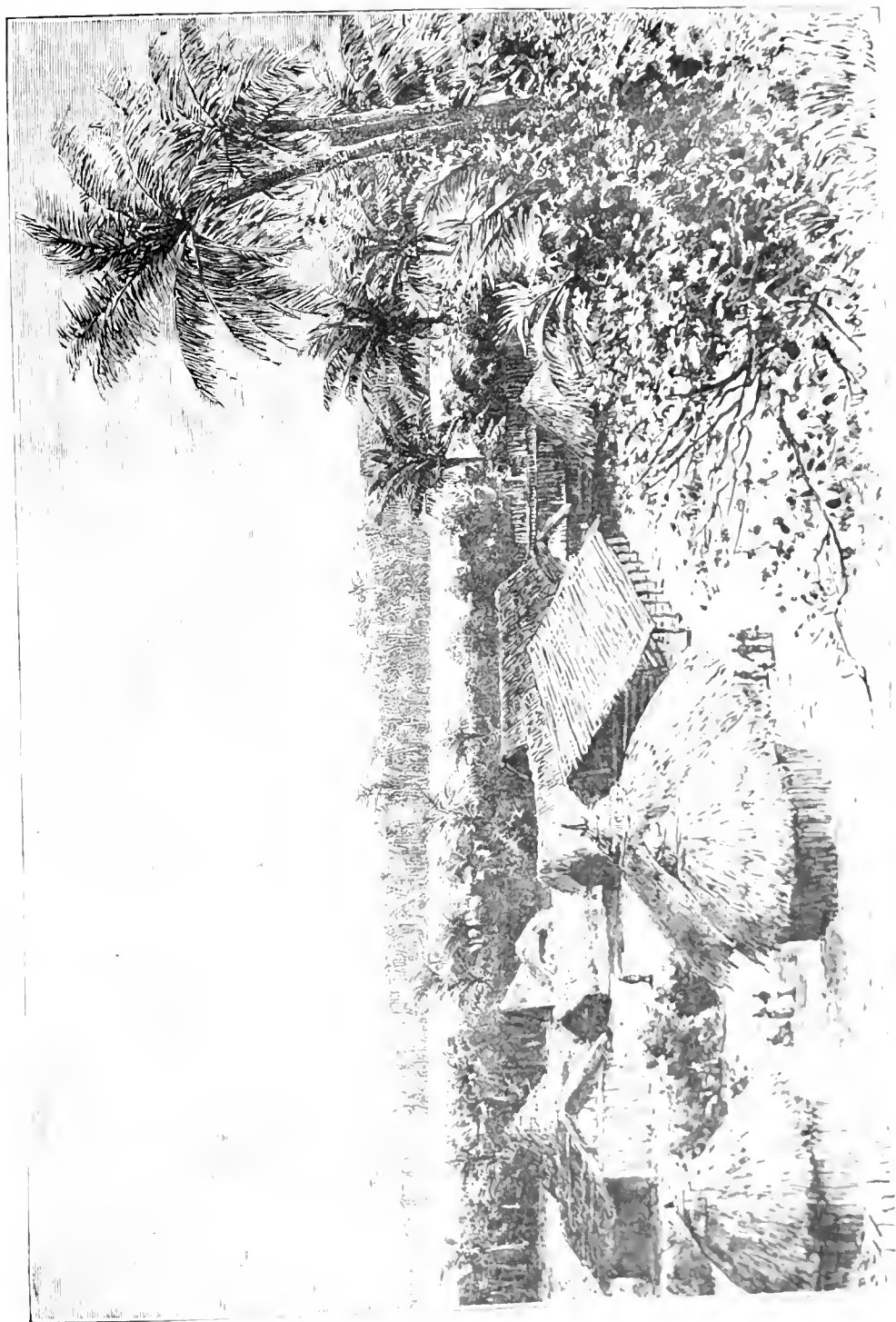
Scale of Miles.



Scale of Miles.

Miles





THE VILLAGE AT LAY



South of U-Vinza the districts of U-Galla, on the river of like name, and U-Kahwende, on the east side of Tanganyika, still lie within the Malagarazi basin. Here are no large villages or important markets; but farther south on the coast lies the European station of *Karema*, founded in 1879 by the International African Association, and afterwards ceded to the French Catholic missionaries, but since 1886 under the sovereignty of Germany. This place, crowning a small hill at the mouth of the Ifame, has already acquired a certain historic celebrity, thanks to the explorers who have made it the centre of their expeditions. When the fort was erected the bluff stood at the edge of the water, which has retired several hundred yards, since the lake has again begun to send its overflow through the Lu-Kuga emissary. In the neighbourhood a large native village has sprung up about 2 miles from the coast, and the slopes of the hill and surrounding low-lying tracts have been laid out by the Belgians with gardens and plantations.

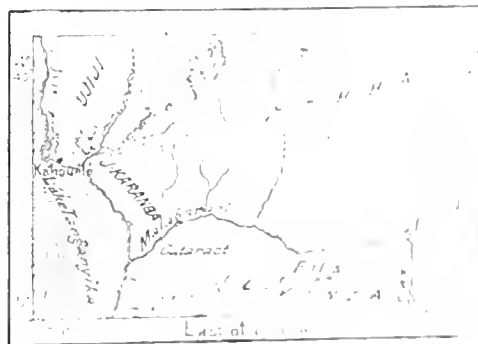
South of Karema the coast is indented by numerous creeks, some of which might become excellent havens. The Kirando inlet, occurring at the narrowest part of the lake, 45 miles from Karema, is completely sheltered by a cluster of neighbouring islets, several large villages are dotted over the district, and extensive rice-fields are spread over the surrounding plains. This region belongs to the Vua-Fifa, a numerous nation, who also occupy the Liamba hills and the shores of Lake Rikwa.

The valley of the river Katuma (Mkafu), which rises to the east of Karema, is shared between the U-Konongo territory in the north and U-Fiba (U-Fipa) in the south. The latter state is one of the most populous in East Africa, and the inhabitants are all daring navigators, who infest all the coastlands, carrying off numerous slaves by their sudden raids on the riverain villages. Near the Konongo-Fiba frontier is situated the petty state of *Mpimbwe*, whose capital is defended on the west by the Liamba hills, and eastwards by the steppes extending far over the plain. Near the town are two thermal springs with a temperature of  $114^{\circ}$  to  $116^{\circ}$  F., which fill a basin much resorted to by the natives for the efficacy of its waters. Mpimbwe, destroyed by Mirambo's people in 1889, has been rebuilt at a little distance from the old site. The spot is shown between two baobab trees, where fell the agents of the African Association, Carter and Goble, head, in the struggle with Mirambo.

In the U-Rungu district, near the southern extremity of Tanganyika, lies the best port in the lake, to which the natives give the name of *L. U. U.*, that is,

Fig. 229.—UJJI AND THE MALAGAZI.

Scale 1 : 2,200,000.

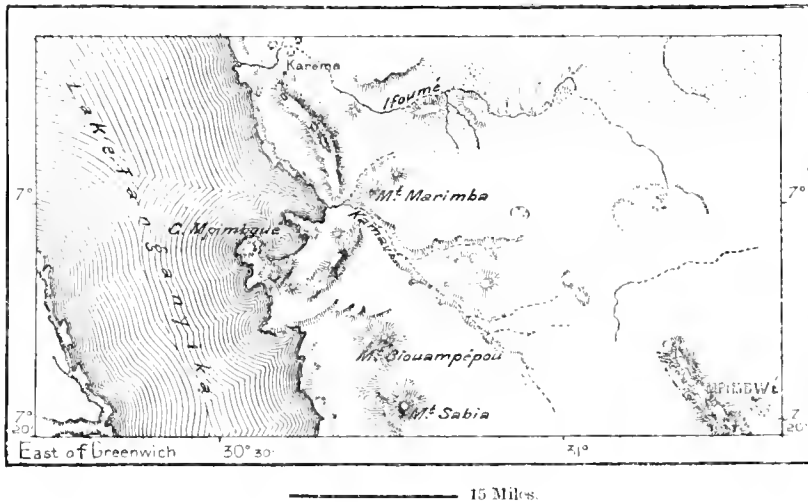


"Lake," a term which they apply in a pre-eminent sense to Tanganyika itself. The port in fact is a lacustrine basin of circular form, like a volcanic crater, completely sheltered on the north and west by the Mpete peninsula, and on the east by the escarpments of the plateau. The village of *Katete*, which stands about 2,000 feet above this almost land-locked haven, is the residence of a sultan called the "Good Chief," who rules the northern Vua-Rungu people. Another important station in this territory is Zombe, a group of palisaded enclosures 2,300 feet above the lake, and consequently 5,000 feet above the sea, with a healthy, almost European climate, and free from the tsetse fly.

Owing to its insalubrious climate, *Pambete*, the southernmost port and Protestant missionary station on the lake, has had to be abandoned, and is now replaced by *Yembe*, on the promontory of that name, which stands between Pambete and the

Fig. 230.—KAREMA AND MPIMBEWE.

Scale 1 : 1,200,000.



Lo-Fu river on the south-west coast. This is the intended northern terminus of the carriage road constructed by Stevenson between Nyassa and Tanganyika. The two great lacustrine basins, connected by this highway some 270 miles long, now forms with the Shiré, Zambese, and lateral arteries, one of the main trade routes penetrating from the Zambese delta 1,200 miles inland, three-fourths of which space is already open to steam navigation.\*

The western slope of the Tanganyika basin between the mouths of the Lo-Fu and Lo-Fuko is occupied by the Itawa and Ma-Rungu (Wanya-Rungu) peoples, who are of the same stock and speech as the Vua-Rungu on the opposite side of the lake. This region is thickly peopled, some of the mountains being covered with plantations and groups of dwellings from base to summit. On a headland commanding the north side of the Lo-Fuko the African International Association has founded the station of *Mpula* over against Karema, but better situated both as

a health resort and for trading purposes. The Lo-Fuko valley offers at this point the most accessible route westwards to Lake Moero and the Lua-Pula river.

The Ma-Rungu are of a somewhat repulsive Negro type, with projecting jaws, flat nose, very short legs, and long trunk, and in some districts much subject to goître. In their territory Reichard has found the soko or sako, an anthropoid ape resembling the chimpanzee rather than the gorilla, as is mentioned by Livingstone, who also saw the soko in the Ma-Nyema country. These large apes, nearly 4 feet high, dwell in colonies in the forests, where they build themselves

Fig. 231.—MA-RUNGU FETISHES.



habitations in the branches of the trees. They are dreaded more than lions by the natives, who believe that their "evil eye" is the forerunner of death.

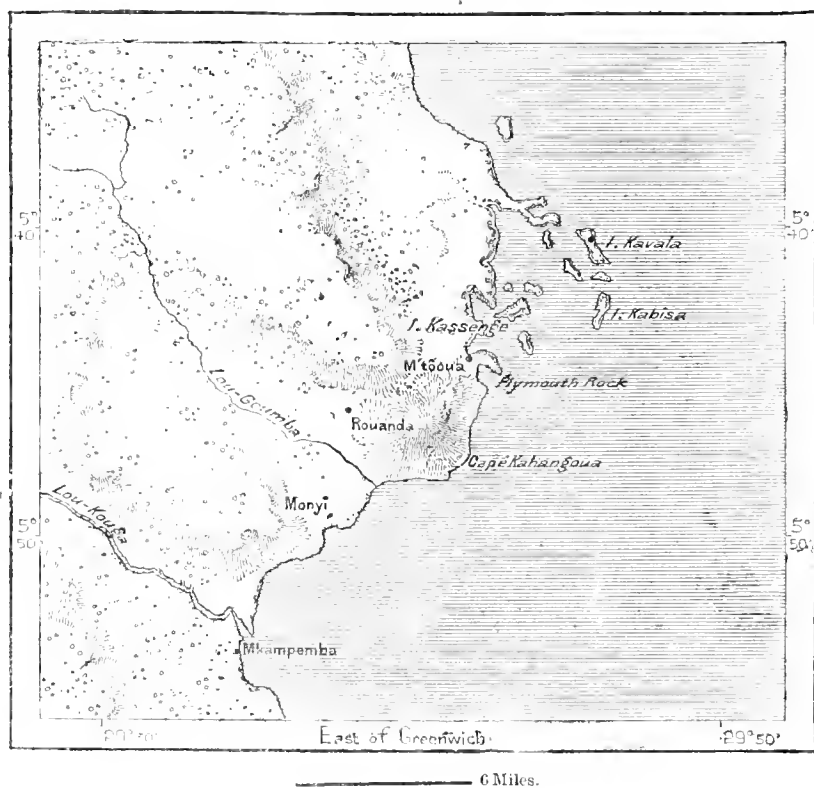
The granite U-Guha uplands north of the Lu-Kuga emissary is inhabited by the prosperous Vua-Guha people, who are related to their Rur neighbours farther west. They are distinguished from other tribes by their lofty head-dress supported by a framework of iron wire and decked with shells, glass beads, and metal balls. They wear garments woven from the raphia fibre, to which the better classes add aprons of monkey or leopard skins. U-Guha is one of the most industrial centres

in Africa, producing potteries, mats, cooperage, wicker-work, arms, implements iron and copper ornaments. *Ruanda*, the capital, situated in a plain to the north of the Lu-Kuga, contains at least four hundred huts disposed in regular wide streets, which are carefully scavenged. Stakes erected at intervals and surmounted by two-headed human effigies remind the people to look both to the past and future, to honour their forefathers' tutelary deities of the place, and at the same time love their children, future defenders of the nation.

Since 1885 a European village has stood on the islet of *Kavala* near a little insular group fringing the coast north of Cape Kahangwa. The English mission-

Fig. 232.—KAVALA ARCHIPELAGO.

Scale 1 : 150,000.



aries have made choice of this station on account of its salubrity and the excellent harbour developed between the island and the mainland. Kavala is at present the European naval station and dockyard on Tanganyika, and also carries on an active trade with the natives.

#### THE CONGO FROM LAKE LANGHI TO THE U-BANGHI CONFLUENCE.

The Upper Congo basin proper, below the Lua-Laba, Lua-Pula, and Lu-Kuga confluence, described by Livingstone as a land of supreme beauty, is occupied



chiefly by the *Vua-Ma-Nyema*, or "Eaters of Flesh," who were till recently much dreaded by their western neighbours owing to their pronounced cannibalism.

Yet such repulsive tastes do not prevent the *Ma-Nyema* from surpassing most of the surrounding peoples in kindness and even gentle dispositions. They are also noted for their physical beauty, the women especially being sought after by the Arabs for their graceful carriage and regular features. The men wear antelope skins, while many of the chiefs have adopted the flowing white toga of the Arabs. Their arms are a heavy, sharp-pointed spear, and a short sword worn in a wooden sheath ornamented with little bells. Their artistic skill is also displayed in the manufacture of stout vegetable materials dyed with fast colours, and in the erection of well-timbered and plastered houses of the rectangular form, common to the *Vua-Regga* and all the inhabitants of the Congo proper. By means of creepers they also construct suspension bridges, strong and firm enough easily to bear the weight of foot traffic.

West of the Upper Congo affluents and in the region of the water-parting dwell other populations, distinct in appearance and usages from the *Ma-Nyema*. Such are the *Vua-Hiya*, distinguished by their filed teeth and irregular tattoo marks; the *Vua-Vinza*, apparently of different origin from their namesakes east of *Tanganyika*; and the *Bua-Bujwe*, *Cameron's Bujwas*, of like speech and probably of the same stock as the *Vua-Rua*. Amongst all these Upper

Congo populations are scattered small groups of *Negritos*, a timid folk, who rarely venture to approach the market-places of their more civilised neighbours. Most of these *Vua-Twa*, or *Ba-Twa*, as they are collectively called, are of dwarfish stature, but generally well-proportioned. Many are true pigmies, smaller even than the *Akkas* of the *Monbuttu* country, the tallest measured by Mr. A. B. Lloyd in 1898 not exceeding four feet in height.

Before Stanley's memorable expedition across the Continent, the *Oman* and *Zanzibari* Arabs had already trading settlements on the banks of the Congo, and their caravans traversed many districts not yet visited by Europeans. Their religious and social influence was dominant among the natives, and every Arab was surrounded by hundreds of more or less assimilated followers, speaking a few words of the language, and practising some of the rites of Islam. The most station in the upper basin was *Kasanga*, a little west of the river and not far from the falls at the head of the navigation. This locality and portion of place had been chosen as the seat of his "kingdom," by Hamud ben Muhamad (Upper Tip), heir to a former Negro kinglet, who has left a name to the Congo

Fig. 233.—TIPPO-TIP.

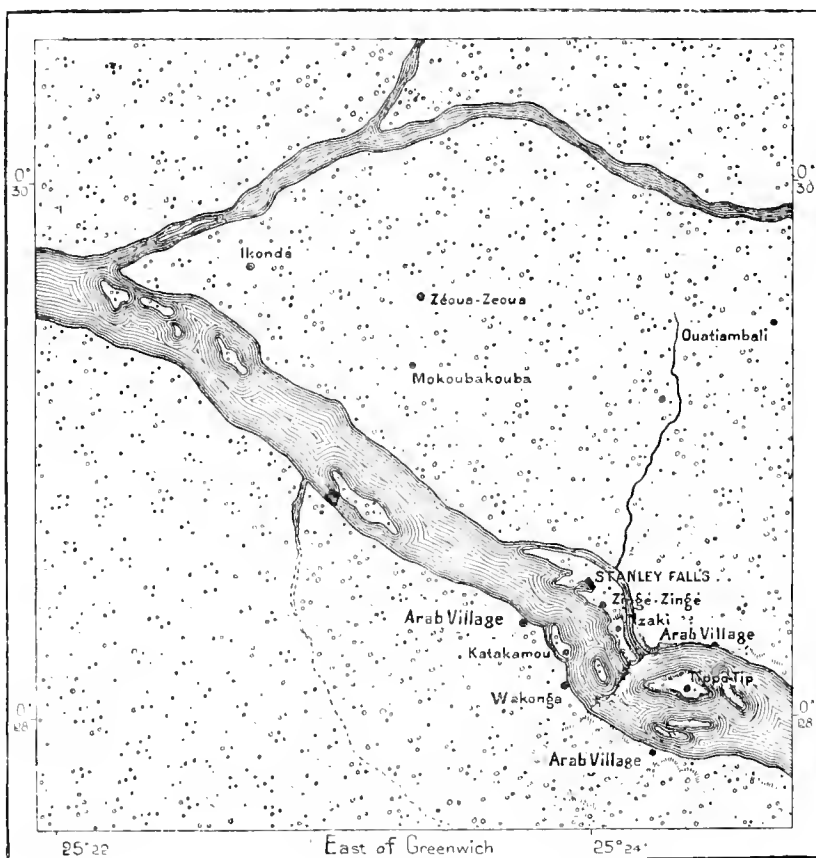


Kassongo. Here the Arab trader had erected a stronghold to which he gave the ambitious name of "London."

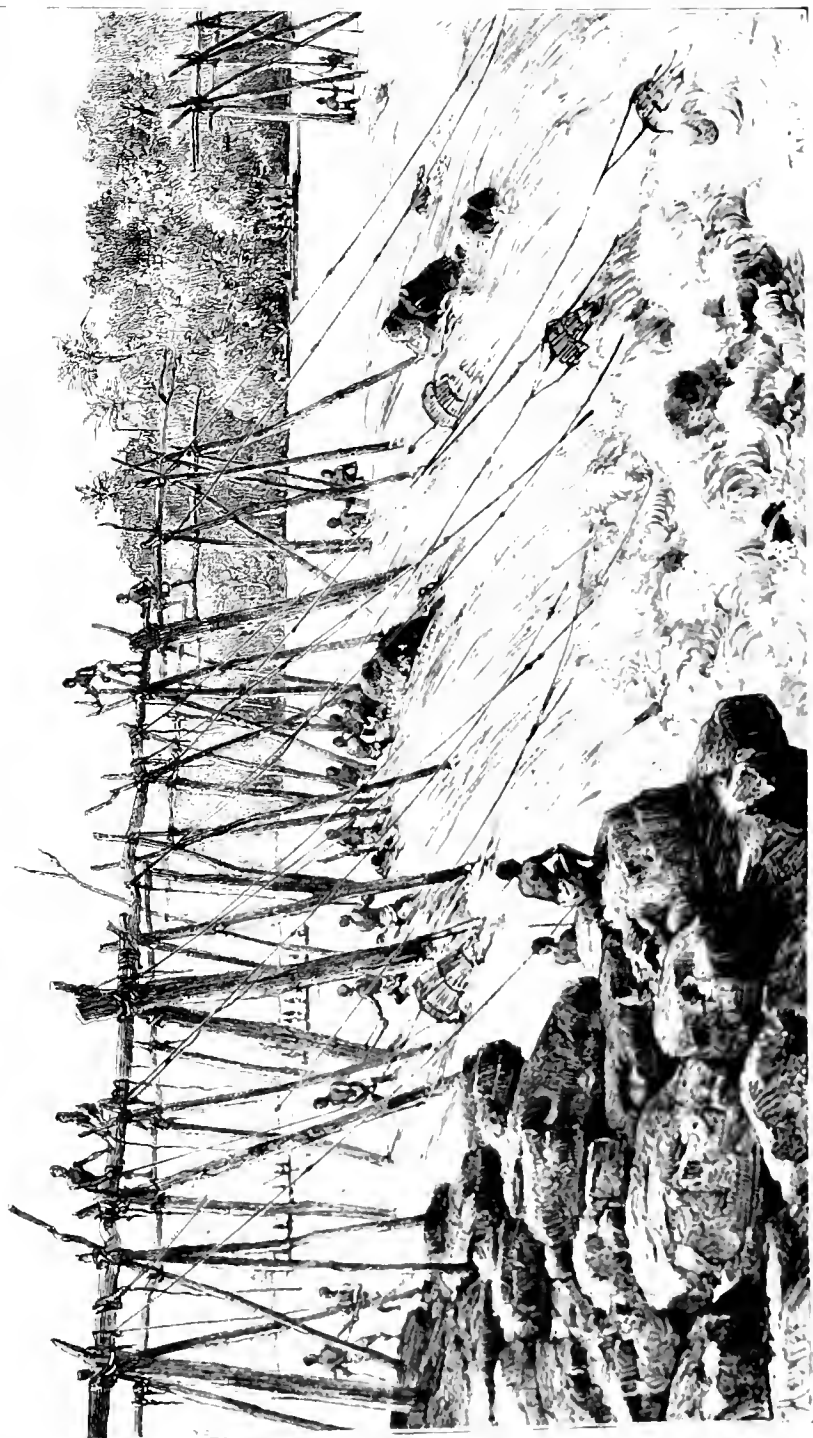
North-west of Kassongo, which had a population of nine thousand "slaves and porters," the twin town of *Nyangwe*, on the right bank of the Congo, had also become an important centre of trade, and according to Glicerup it was in 1885 the largest riverain town in the whole of the Congo basin, with a population of no less than ten thousand. The Arabs had also founded the station of *Riba-Riba*

Fig. 234.—STANLEY FALLS.

Scale 1 : 52,000.



below Nyangwe, and after the overthrow of Mzidi, in 1892, felt themselves strong enough to attempt to arrest the further advance of the Free State in the Upper Congo basin. At first they carried everything before them, but the recovery of the Stanley Fall Station, which they had seized, was followed by the capture of Riba-Riba, Nyangwe, and Kassongo, and the complete overthrow of Sefu, son of Tippa-Tipp, and the powerful chief Rimaliza, in 1894. The slave-hunters were thus finally expelled from the Upper Congo region, which in 1895 was constituted an administrative district, with capital Nyangwe.



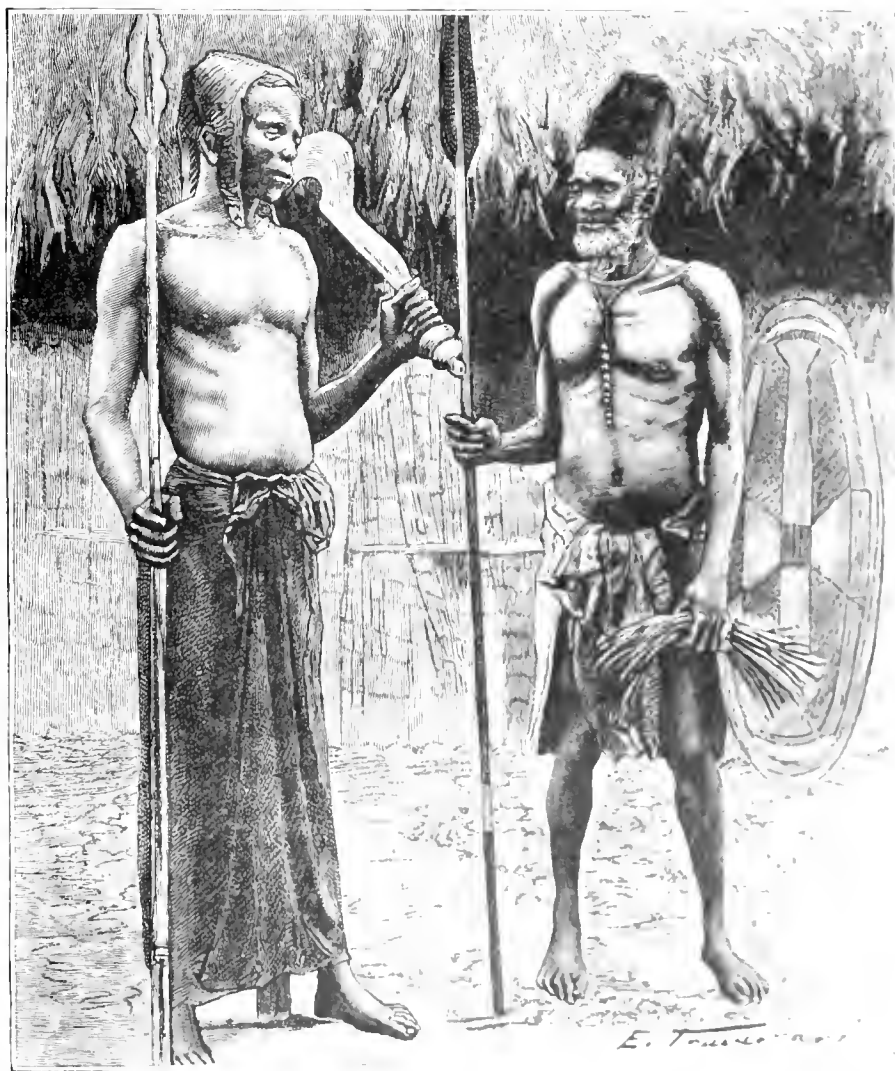
FISHING AT THE SEVENTH CATAWA



Below Nyangwe follow other cannibal communities, which maintained direct trading relations with the Arabs. The riverain tracts are here thickly peopled, and some of the villages have thousands of inhabitants. But after the appearance of the Arabs most of them were displaced, so that very few of those mentioned by Stanley can now be identified.

An island near the right bank below the seventh and last of the Stanley Falls

Fig. 255. — UNDER CHIEF OF IROKO AND HEAD CHIEF OF THE BANGWA.



was chosen in the year 1885 as a convenient site for an early road station in the interior. It occupies an excellent position at the extreme limit of the navigation of the Middle Congo, at the point where it begins to divide by rapids, and near the confluence of the large Fouloué (M'poko) river. This place, which is known by the English name of *Livingstone Falls*, was stormed in 1886, and its little garrison of 11 men killed.

with their European officers, either massacred or put to flight by the Arab slave-hunters.

The small European station of *Ba-Soko*, on the right bank of the Aruwimi at its confluence with the Congo, had also to be abandoned for motives of economy. In order effectively to protect trade in the Aruwimi basin, it would be absolutely necessary to maintain a strong garrison at *Yambuya*; and here Stanley established a camp to keep open his communications during his expedition to the relief of Emin Bey. This expedition (1887-88) mainly followed the banks of the Aruwimi, and of its upper course, the Ituri, nearly to its source, not far from the west side of Lake Albert Nyanza. This great tributary of the Congo has a total length of about 700 miles, its farthest headstreams rising at the southern foot of the cluster of hills known as the "Traveller's Group," and called, in their order from south to north, Mounts Schweinfurth, Junker, Speke, Chippendall and Emin Pasha. About midway between the Congo and Lake Albert the Aruwimi is joined by its largest tributary, the Nepoko, which flows southwards from the Nile-Congo water-parting, and develops at the confluence a picturesque waterfall, completely barring all navigation. The Aruwimi catchment basin, which is mostly covered with dense forests, has a total area of about 67,000 square miles.

The prosperous station of *Upoto* promises one day to be a place of some importance. The site chosen lies on the right bank of the river at the foot of the Upoto hills, and not far from the northernmost point of the curve described by the Congo north of the equator. Farther down the point, where the river trends sharply to the south-west, is occupied by the station of *Ba-Ngala* (*Bangala*), so named from the inhabitants of the district, estimated by Grenfell at one hundred and ten thousand, and by M. Coquilhat at one hundred and thirty-seven thousand on both sides of the Congo. They have some very large villages stretching for miles along the riverain tracts, and Ba-Ngala itself, of which the European station forms part, is said to be scattered over a space of no less than 20 miles.

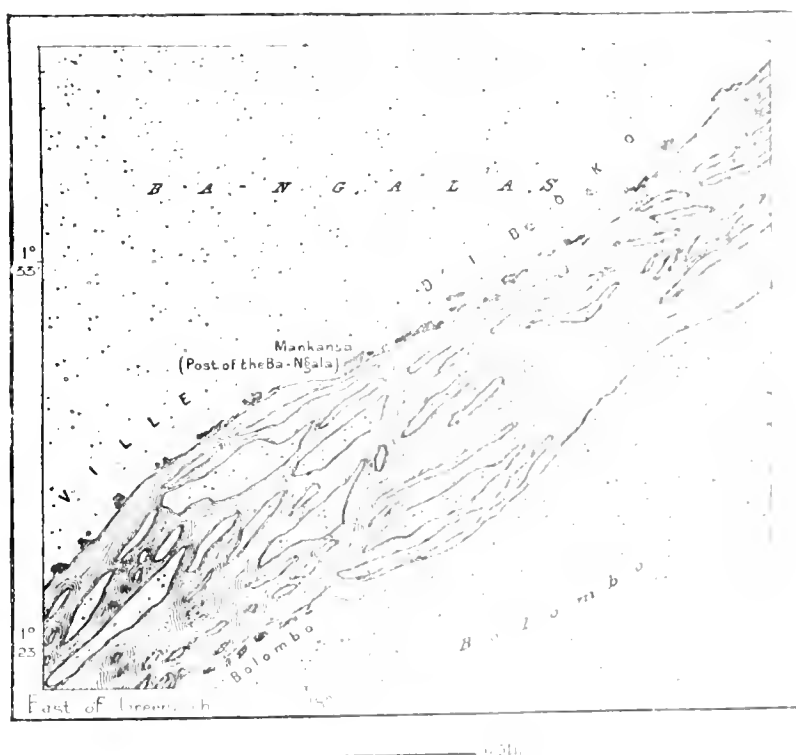
The Ba-Ngala nation also bears the same name as the Mongalla (Mo-Ngala) affluent, ascended by Grenfell and others to the head of the navigation in the Sebi territory. On the left bank dwell the Bo-Lombo, another branch of the Ba-Ngala, whose chief village takes the same name. They are generally a fine race, whose features would be agreeable, even to a European eye, but for their habit of eradicating the eyebrows and eyelashes, and filing the teeth to a point. Their national dress, made of palm-fibre, is being replaced by garments of European manufacture, still supplemented by the women with wreaths of foliage tattooed on the calves. The Ba-Ngala are a highly intelligent people, who, like the civilised Europeans, give way at times to incontrollable fits of frenzy or despair; hence, cases of suicide are far from rare amongst them. At the burial of a chief the women and children have been seen performing veritable dramas with dance and song representing death and the resurrection.

The station of *Lu Longo* (*U-Ranga*), which overawed the large town of the

same name, has been abandoned; but *Equatorville*, farther south, is still maintained. It takes its name from its position close to the equator on an elevated plateau at the confluence of the Congo and the Juapa, or Black River. Here a Protestant mission has already been established. The banks of the Ikolomba, which joins the Congo over a mile above the Juapa, is densely peopled, being dotted over with numerous villages, usually defended by high palisades and deep ditches. Probably no African people disfigure themselves more by tattoo markings than do the tribes in this riverain district. By means of incisions, ligatures, and other devices, they contrive to cover the features with excrescences

Fig. 236. BA-NGALA STATION.

Scale 1:200,000.



in the shape of peas and wens, differing with most individuals, but imparting to all a loathsome appearance. Grenfell mentions a young girl who had a wen on both sides of the nose as large as a pigeon's egg, which prevented her from looking straightforward. In order to recognise anybody, she had to lower her head to allow the glance to avoid the obstruction caused by these "beauty spots."

#### THE WELLE BASIN, MONBUTU, AND NIANG-NIANG TERRITUDES.

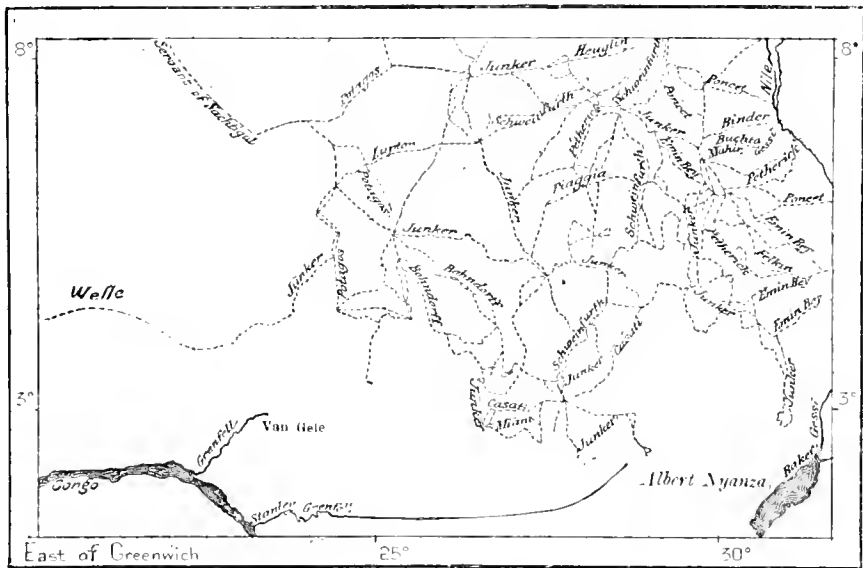
This section of the Congo basin, whose hydrographic connection with the main stream has been established by Junker and later explorers, is one of

those regions which promise one day to acquire the greatest economic importance as forming lands of transition between the Nile and Congo systems. In an ethnological sense it also forms a connecting link with the Negroes and Bantus, the inhabitants of the waterparting showing affinities to both races in their social usages, while still constituting a distinct family.

When Schweinfurth penetrated for the first time into this region he had good reason to call it the "Heart of Africa," for here lies the point of intersection for the diagonal continental lines drawn from the mouth of the Congo to the Nile delta, and from the Gulf of Guinea to that of Aden. Yet this divide between the two great fluvial systems was then but little known. After Schweinfurth's

Fig. 237.—CHIEF ROUTES OF EXPLORERS IN MONBUTTU LAND.

Scale 1 : 12,000,000.



memorable expedition, the subsequent journeys of Bohndorff, Lupton, Potagos, and Casati added details of a secondary interest only to the rich and varied information supplied by that pioneer. But it is otherwise with Junker's journeys, the publication of which must certainly be regarded as a geographical event of primary importance for our knowledge of this part of the continent. Equally important are the data supplied by Stanley's Emin Pasha Relief Expedition of 1887, and since then the whole region has been traversed in all directions by Belgian military expeditions engaged in extending the rule of the Congo State over the Welle basin.

The Welle of the Niam-Niams, the Nomayo of the Monbuttus, the Bahr-el-Makua of the Arabs, rises under the name of Kibali in the uplands skirting the



left side of Lake Albert Nyanza. After traversing regions not yet visited by the white man, it enters the domain of the Monbuttus (Mang-Battu), a country already made known by the descriptions of Schweinfurth. Monbuttu Land is a magnificent region, an "earthly paradise," abounding in an exuberant vegetation, diversified with charming park-lands and picturesque landscapes. Standing at an altitude of from 2,500 to 2,800 feet, and rising in gentle undulations to hills 300 or 400 feet high, it enjoys a temperate climate, notwithstanding its proximity to the equator. Running waters wind along the bottom lands, shaded by large

Fig. 238.—A MONBUTTU WOMAN



trees with intertwined branches, while the habitations are everywhere encircled by verdant clusters of bananas and oil-palms. Although there are no towns, the population is very dense, being estimated by Schweinfurth at about one million. In other words, in a space some 1,000 square miles in extent, the number of inhabitants, nearly two hundred to the square mile, would be one-fourth greater than the average in France.

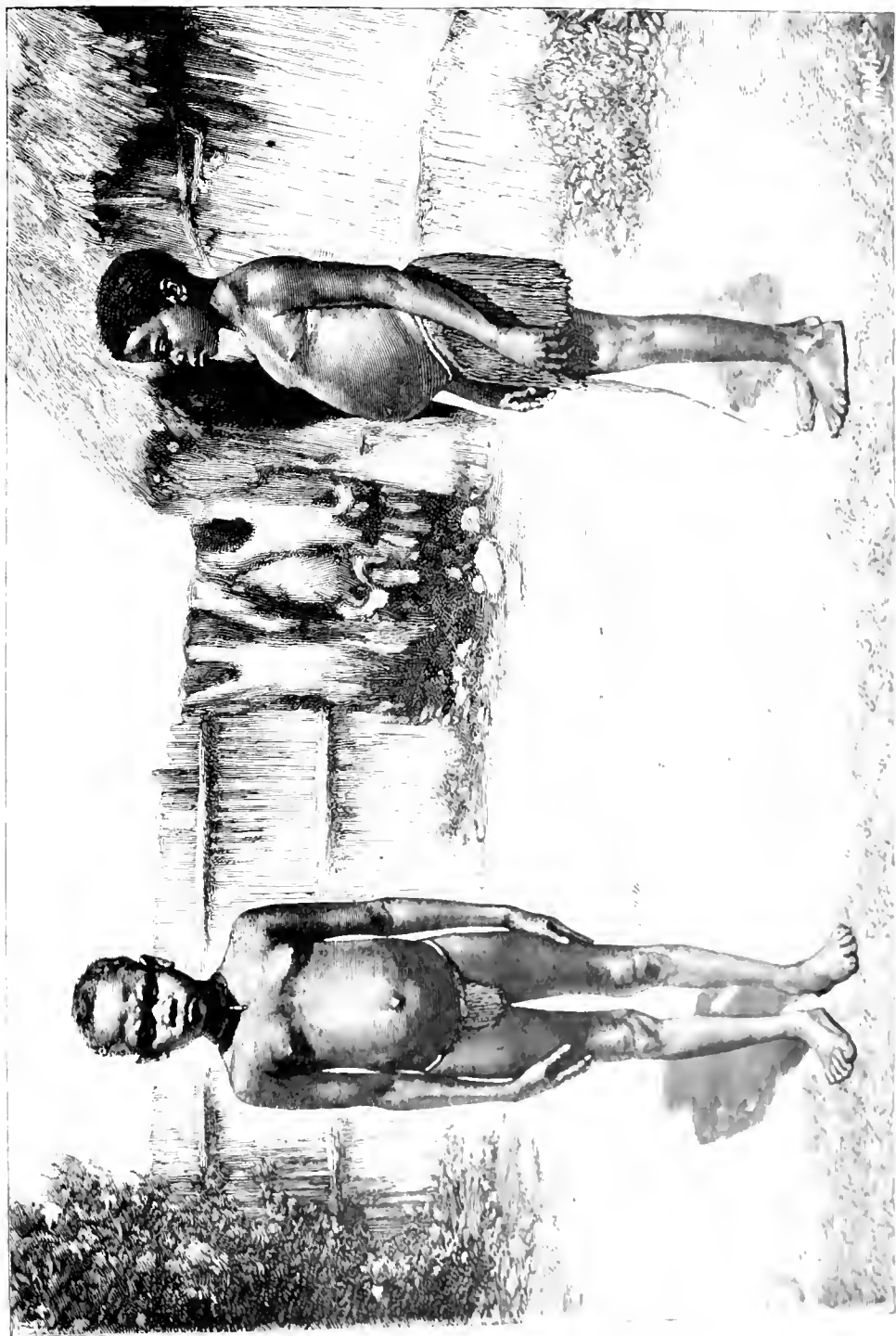
The Monbuttus differ greatly in physical appearance from the negroes, being distinguished by almost Semitic features and often even by a partially

aquiline nose. The complexion is somewhat lighter than that of the surrounding Niam-Niams and Negroes. The beard also is longer than amongst most Africans, while thousands are noted for an almost white skin and light hair, although kinky like that of other Negroes. Certainly nowhere else is the relative proportion of albinos so great as amongst the Monbuttus, who are otherwise distinguished by their long and somewhat slender extremities, muscular frames, and marvellous agility. Faithful to their ancestral customs, all the men wear a dress made from the bark of the fig-tree, to which time imparts a glossy appearance, and which is wound in graceful folds round the legs and body and fastened to the waist by ox-hide thongs ornamented with copper. The women wear a simple loin-cloth, and in some districts even this is dispensed with, or replaced by a graceful network of geometrical lines. The whole body is painted over with stars, crosses, bees, flowers, arabesques, stripes, and suchlike designs regularly disposed, and at every feast renewed with an endless variety of fresh patterns.

The Monbuttu hunters capture the elephant, buffalo, and antelope; but they maintain a perpetual state of warfare with the surrounding peoples, and their chief quarry is man. Of all African anthropophagists, the Monbuttus, with the kindred Mang-Banga nation, appear to be the most partial to a diet of human flesh. Surrounded by tribes whom they usually designate by the opprobrious name of Mon-Vu, and whom they hunt as so much game to the view-halloo of "Pichio, Pichio!" ("Meat, Meat!"), they kill on the battle-field as many as possible, and then convert the slain into jerked meat, reserving the prisoners for future occasions. Each family has its regular supply of human flesh, and the fat of man is the most generally used. Schweinfurth easily collected over two hundred skulls, but most of them had been broken to extract the brain. The teeth of the victims are strung together as necklaces, and the slaves are not sold, but eaten.

Nevertheless this nation of cannibals takes in many respects the foremost position amongst the African populations. They are loyal to their pledged word, and steadfast in friendship. The national sentiment is also fully developed, and all fight valiantly against the common enemy. In 1866, when the Nubians, equipped with firearms, for the first time penetrated into the country, the natives headed by a woman in man's attire and armed with shield and lance, bravely repulsed and compelled them to sue for peace. In the household the wife is almost the husband's equal, enjoying her share of the property, her personal will, and recognised rights. But, as amongst the surrounding Negroes, the women do most of the heavy work both in the field and at home, and many artistic objects, such as wood-carvings and fine wickerwork, are the product of their hands.

The industries are, relatively speaking, highly developed. As potters, sculptors, boatbuilders, and masons the Monbuttus have no rivals in the region between the Nile and Congo. In the quadrangular form of the dwellings their architecture is allied to that of the western peoples, but surpasses it in the size and skilful adjustment of their structures and wealth of ornamental work lavished on their



AKKA MAN AND WOMAN

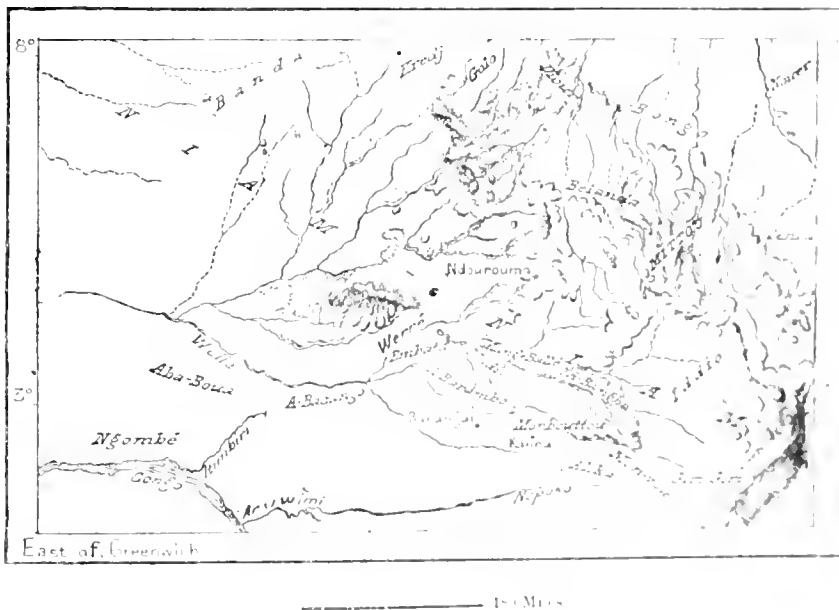


buildings. The reception hall of the king of the Western Monbutus, destroyed in 1884, resembled in general outline a great railway terminus; the roof, over 100 feet long, 50 wide, and 40 high, gracefully arched, and of perfectly regular form, rested on three rows of polished wooden pillars, these pillars as well as the thousand geometrical wooden figures being painted in three colours, white, blood-red, and yellow ochre.

Amongst the Monbutus, and more especially amongst the Negro or Bantu tribes more to the south, are scattered numerous groups of the Akka race, who like the Vua-Twa of the Upper Congo, seemed to be descended from the aborigines who occupied the land before the Bantu invasions. The district south of the Welle is still inhabited by these aborigines, who are probably the Bakka-Bakka of

Fig. 239.—INHABITANTS OF THE WELLE BASIN

Scale 1 : 12,000,000



the Portuguese writers of the seventeenth century, and akin to the Badias of U-Nyoro in the region of the equatorial lakes. Of all the African "dwarfs," the Akkas are considered by the learned as the best representatives of the "little people" mentioned by Herodotus in connection with the wanderings of the Nasamons. The two sent by Miani to Italy in 1873 were respectively 4 feet 4 inches and 4 feet 8 inches high, while the tallest seen by Schweinfurth did not exceed 5 feet. The pure Akka type is brachycephalic round-headed, with disproportionately large head, very projecting jaws, receding chin, mouth nearly always open, less tumid lips than those of most Negroes, prominent cheek-bones, wrinkled cheeks, small nose separated from the frontal bone by a very marked cavity, large ear, and wide-open eye giving them a somewhat birdlike aspect. The body is of a lighter brown complexion than that of the true Negro, is of

ungainly form, and according to Emin Bey emits a peculiar and very pungent odour. Enormous shoulder-blades give them a rounded back, other marked physical characteristics being a flat, narrow, and hairy chest, full paunch like that of Negro children, long slender extremities, very delicate hands, large bony knees, feet turned inwards, and an uncomfortable tottering gait. Nevertheless they are extremely nimble, bounding through the tall grass "like grasshoppers," and so sure of aim that they do not hesitate to attack the elephant, planting their darts right in his eye, or, according to the Nubians, creeping between his legs and spearing him from below. Their hunters show great ingenuity in devising and setting snares, in overtaking and pursuing the quarry, thanks to which qualities they live on good terms with their powerful neighbours, supplying them with ivory and at the same time acting as agents for the distribution of salt, which is such a valuable commodity in the interior of Africa.

West and north-west of the Monbuttu territory the Nile-Congo waterparting is occupied by the powerful Zandeh or A-Zandeh nation, who like the Bangalas of the Niger basin are better known by the name of Niam-Niam, and who are also called Babungera and Karakara. The crest of the divide running south-east and north-west between the White Nile and Welle slopes runs very nearly through the centre of the Zandeh domain, a healthy and pleasantly undulating region standing from 2,500 to 3,000 feet above sea-level. North-westwards the race also probably penetrates into the Upper Shari, and consequently into the Tsad basin, while the striking resemblance observed between their usages and those of the Fans in the Gaboon and Ogoway regions would seem to show that the Niam-Niams have penetrated far to the west. The original unity of these two peoples is rendered all the more probable that their migrations have proceeded in opposite directions, as if from a common centre of dispersion. Hence while the Fans claim to have come from the east, the Zandehs relate that their forefathers reached their present abodes from the west.

But however this be, the part of Central Africa already known to belong to the Niam-Niams is estimated by Schweinfurth at nearly 60,000 square miles, with a total population of probably not less than two millions, either true Zandehs, or allied, vassal, or enslaved peoples. But there is no national unity, and merely in the part of the country explored by him Schweinfurth enumerates no less than thirty-five independent chiefs, several of whom maintained constant blood feuds against each other. According to Keane the Banda Niam-Niams of the north-east should be carefully distinguished both from the Belandas of the central districts between the Nile and Congo watersheds, and from the "white" Niam-Niams, who dwell farther south as far as and beyond the Welle, and who are the most civilised of all.

The fame of the Niam-Niams had long been spread abroad amongst the Nubians and Sudanese Arabs; but the mirage produced by distance conjured up strange visions of this mysterious people, picturing them rather as a superior kind of ape than as members of the human family. The famous "tailed men," reported by travellers beyond the Upper Nile regions, were supposed to be none other than the

Zandebs, who nevertheless, unlike the Bongos, did not even wear an ox-tail, which, at a distance, might present the appearance of a natural appendix. Still less could the illusion be created by the skins of animals which they wear wrapped round the loins. But on the other hand the term Niam-Niam, or "eaters," applied also, however, by the Nubians to numerous other tribes, is certainly justified by the cannibalistic practices at least of some of the Zandeh communities. Piaggia, who was the first to traverse the Nilotic section of their domain in 1863-65,

Fig. 240.—NIAM-NIAM WOMAN.



noticed only one instance of cannibalism, that of a skin enemy, who was shared amongst the victors. It seems evident that on the whole the Zandebs are far less addicted to the habit than the Monbuttus, although amongst most of the tribes the tradition prevails of eating captives and those who die friendless. All bodies, except those tainted by some skin complaint, are regarded as good for the table. Even those who abstain from human flesh are extremely carnivorous, living mainly on dogs, game, and poultry, for they raise no large domestic animals. It is characteristic that amongst their essentially agricultural and frugivorous Bongo

neighbours the same word means "sorghum" and "to eat," which in the Niam-Niam and Fan dialects has the signification of "flesh" and "food."

The Zandebs are round-headed, with straight nose, wide nostrils, full cheeks and lips, round and almost feminine features, an effect which is heightened by their peculiar style of head-dress. Their kinky hair is remarkable for its great length, some wearing tresses which reach down to the waist, while many are furnished with a dense beard much longer than that of any other Negro or negroid peoples. The female head-dress is much more simple than that of the men, who spend whole

Fig. 241.—NIAM-NIAM MAN.



days in curling their ringlets, frizzling their tufts, or polishing their fillets. The majority carefully divide the hair down the middle from nape to forehead, while others form above the brow a triangular top-knot between two volutes, whence hang the curls enfaming the face. Some even attach their locks in the form of a nimbus to a circular frame supported above the head.

But by its lack of ornamentation the body presents a striking contrast to these elaborate head-dresses. Despising the glass trinkets, which have such a fascination for most other Negro peoples, the Niam-Niams content themselves with a few



ornaments of blue grains or of cowries, tracing a cross or some other square or

Fig. 242.—GROUP OF NIAM-NIAMS AND THEIR DWELLINGS.



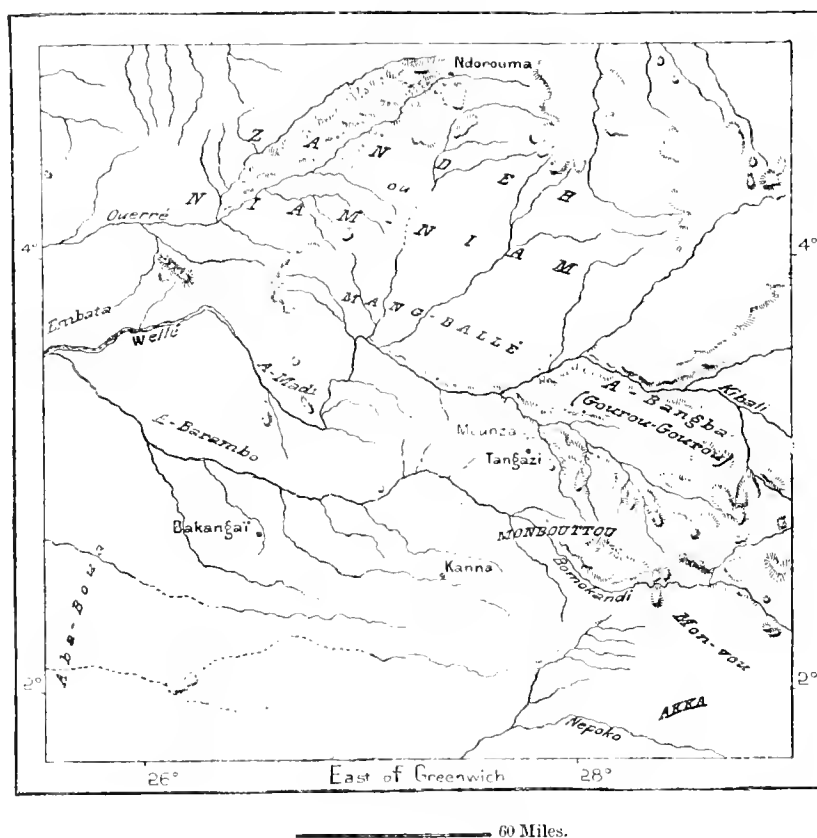
triangular mark on the body, and a cross on the forehead.

rectangle, as the sign of their nationality. The skin of an animal encircles their waist, and the chiefs adorn their heads with a leopard's fur, while all file the incisors to a point. Despite the soft rounded form of the features and bust, and the feminine elegance of their coiffure, the Zandebs are distinguished amongst all Africans by their noble carriage. The trunk may perhaps be somewhat long compared to the lower extremities, but they are none the less noted for their marvellous agility, using their offensive weapons, such as the spear and dart, with dangerous dexterity.

A distinctive national trait is the vehemence of their conjugal affection. In

Fig. 243.—UPPER WELLE BASIN.

Scale 1 : 3,800,000.



their domain no wife is purchased, as is customary amongst nearly all African peoples. The marriageable young man applies to the district chief, who looks him out a suitable consort; yet notwithstanding this somewhat official arrangement, which seems to override the individual inclinations, these unions are seldom unhappy, and the wife is as faithful to her husband as she is reserved towards strangers. In this respect the contrast is complete between them and their Monbuttu sisters. The Zandebs are, on their part, passionately devoted to their wives, so much so that in war the enemy first endeavours to seize the women in

order thus to compel the men to sue for mercy and promise payment of tribute. Their strolling minstrels, who resemble the Senegambian musicians, intermingle love ditties with warlike songs.

The native chiefs, although despising outward show, and distinguished from their subjects only by the leopard-skin, none the less enjoy almost absolute authority over the community. They are supreme masters, and when there has been no occasion to exercise their judicial powers over real offenders, they are said at times to fall on some innocent person and decapitate him, to prevent their right of life and death over their subjects from being questioned. The eldest son succeeds, as in Europe, to the supreme power, the royal revenues consisting of the ivory and half the flesh of all elephants killed in their domain. The rulers have also appropriated for their own use extensive estates, which are cultivated by their women and slaves. In the districts formerly visited by the slave hunters from Dar-For, the chiefs took in lieu of tribute young men and women, whom they sold to the strangers, a part of the price being returned to the families by way of indemnity. In the southern kingdoms of Kanna, lying south of the Welle, the royal tomb was long guarded by twenty-five vestals, who were bound under pain of death to keep a sacred flame burning at the shrine.

In the midst of the Zandeh tribes and on the right bank of the Welle separating them from the A-Barambo people, numerous villages are occupied by the A-Madi, who speak a different language from all the surrounding tribes, although resembling the Niam-Niams in appearance. But they are of darker complexion, and have almost brachycephalic skulls.

#### THE FRENCH CONGO.

The eastern section of the French possessions politically attached to the Gabon and Ogoway government is comprised within the Congo basin, being watered by several navigable rivers belonging to that hydrographic system. Such are the Bunga and its numerous tributaries, the Likwalla, the Alima, Nkhori, and Lemba, which open a waterway from the coast to the Middle Congo above the cataracts, and which promise one day to become important trade routes towards the Ogoway and Gaboon basins. The U-Banghi itself, whose right bank is now within the French territory, is probably destined to form the main artery in the direction of the Upper Nile Valley, and of the central plateau and the depression of Lake Tsad. This vast domain, which now forms a continuous territory with the Gaboon, has a total area of 137,000 square miles, with a population roughly estimated (1898) at 5,000,000.

The U-Banghi has now been thoroughly surveyed from its mouth to the Welle. Grenfell's steamer, which first forced the Zoulo rapid in 1886, was assailed by a shower of arrows from the natives perched in a rich village, supported by the branches of the bombax. It would thus seem that the natives prevalent in the Upper Shari districts are also found in the south of the

Congo. Farther down the right bank of the U-Banghi, which is by far the more populous, is held by the Ba-Ati, Mo-Nyembo, Mbonjo, and Mu-Tumbi tribes, whose villages follow in as close succession as in the Ba-Ngala country. In the morning, when the men start for their fishing-grounds, or accompany the women and children to the fields along the river banks, as many as two or three hundred canoes are at times assembled, preceded by a kind of admiral's war-vessel, on which is heard the roll of the battle-drum.

No less populous are the banks of the Nghiri, between the U-Banghi and the Congo, where villages, banana and palm-groves, follow uninterruptedly for a space of over 100 miles. West of the U-Banghi, the Ba-Lohi (Ba-Loi), noted for their herculean strength and muscular development, are on the contrary scattered in isolated groups about the windings of the stream. All these populations of the U-Banghi basin are remarkable for their physical strength and beauty, and are distinguished from each other by their tattoo marks and different styles of headdress. Cannibalism is very prevalent, all captives being eaten. The Mbonjos wear a singular costume, made up of foliage and fishing-nets.

In the region of the French Congo, by far the most numerous nation are the Bu-Banghi, who dwell in the U-Banghi valley, and who rival the Fans themselves of the Ogoway basin in numbers. According to De Chevannes, these Negroes of Bantu stock cannot be estimated at less than one million. Amongst them are comprised tribes bearing various names, such as the Ap-Furu of the Alima River, and the Ba-Zanzi (Ba-Nyanzi), on the left bank of the Congo, all of whom certainly belong to the same family, for they speak the same language and practise the same usages and system of tattooing. Villages of two or three thousand inhabitants are by no means rare in the territory of the Bu-Banghi, who came traditionally from the north towards the end of the eighteenth century. They penetrated as far as the banks of the Lefini, where they were arrested by the king of the Ba-Teke, who vanquished them in a battle which lasted three days. Ever since that time they are unable to descend in canoes down to Stanley Pool without paying tribute to a Ba-Teke official, bearing the title of the "River Chief." Nevertheless, they still continue to advance southwards, and are generally well received, owing to the part they play as agents of the local traffic.

The Bu-Banghi are a highly enterprising people, daring speculators and great newsmongers, so that on their arrival in a village they are immediately surrounded by eager listeners. They are also the leaders of fashion for all the surrounding populations, for they display great skill in dressing their hair in points and bars, in painting the body and covering it with tattoo patterns and raised seams or welts, produced by means of two bamboo twigs forming a seton. The women submit to the torture of wearing massive copper necklaces and leg ornaments, and some of the great ladies toil painfully along under a load of jewellery weighing a hundred and ten or even a hundred and twenty and a hundred and thirty pounds.

The post of *Nkunjia*, which the French had founded in the Bu-Banghi territory, has had to be abandoned, for it stood on the left bank of the U-Banghi,

which the convention of 1886 has restored to the Congo Free State. The great market of the whole country, also lying within the Free State, is the group of villages bearing the collective name of *Ireba* (*Ileba*), on the emissary through which Lake Montumba sends its overflow to the Congo, nearly opposite the U-Banghi confluence.

In the Upper Bunga and Likwalla basins, which flow eastwards to the U-Banghi, dwell the Jambis, the Okotas, the Okangas, the Ubetas, and the Ba-Mbu. But although their country has been crossed by several travellers since it was first visited by Jacques de Brazza and Pecile, little is known of these peoples, who are all of Banku speech and at a low stage of culture. The lower course of these rivers, as well as of the Alima, is comprised within the territory of the Ba-Banghi, who, however, here take the name of Ap-Furu, or Ba-Furu. Like the other members of the nation, they are mostly itinerant traders, whole family groups consisting of persons born afloat and destined to die in their canoes. The floating villages are in many places more numerous and more populous than those situated on the mainland. From the Ba-Teke of the Upper Alima, the Ap-Furu boatmen purchase manioc, which they grind to flour and sell to the populations lower down, the quantity of this article thus daily retailed being estimated at no less than ten tons.

Thanks to this commercial movement, the Alima, of all the rivers in the French Congo territory, has acquired the greatest strategical importance. It possesses all the greater value that it rises in the same transverse valley as the Ogoway, and, consequently, continues the waterway formed by this river between the northern and southern sections of the Gaboon-Ogoway region. The road already constructed on the waterparting to the east of Franceville has its present terminus on a tributary of the Alima, and stations have here been founded at intervals to relieve the porters and further the transit of merchandise.

*Diélé*, the station lying nearest to the sources, is situated on a river of like name, while the *Alima* station itself stands at the point where the *Diélé* and the Gombo mingle their waters to form the Alima proper. Beyond it follows *Loketi*, at another confluence of the main stream, and *Pombo* (*M'oh*) near the Alima-Congo confluence. Pombo has been founded chiefly for the purpose of supplying the "straw" and "bamboos," or raphia fibre, to the stations along the Congo.

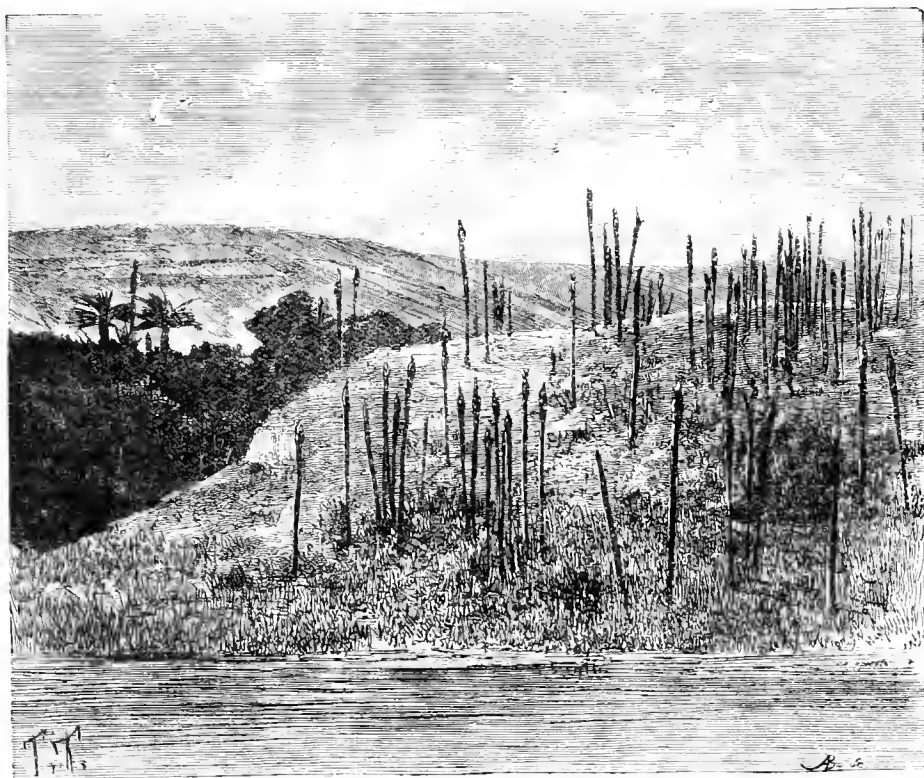
The Mboshi, who give an alternative name to this post on the Lower Alima, are one of the most savage peoples in the whole Congo region. Their rascally and dogged attitude renders them a thorn in the side of their more peaceful Ba-Furu and Ap-Furu neighbours, and the French themselves have had much trouble in maintaining the station of Pombo in their territory. Physically the Mboshi are tall and stalwart race, but lack the graceful carriage of the Ba-Furu, and the sculpturesque beauty of the Ap-Furus. They are probably the result of the interminglings still continue, for those dwelling on the banks of the Congo are wont to take wives from foreign tribes.

From the fetishmen, who are at once wizards, judges, and warriors, the Mboshi

endeavour to protect themselves by many-coloured marks daubed round the orbits and on other parts of the face. Thus white preserves them from drowning, red from wounds, yellow from fire. Unlike most other Negroes, they are indifferent to personal ornamentation, and despise the meretricious charms of the toilet in which so many native tribes spend a great part of their existence. They display no taste for art, and even the dance and tam-tamming are reserved for solemn occasions of national interest.

The Ba-Teke occupy the riverain tracts along the Upper Alima and the upland waterparting, which in many places is strewn with a white sand giving it the appearance of a saline waste. Some of the tribes encroach westwards on the

Fig. 244.—DEAD TRUNKS OF PALMS NEAR M'SUALA, ON THE CONGO.

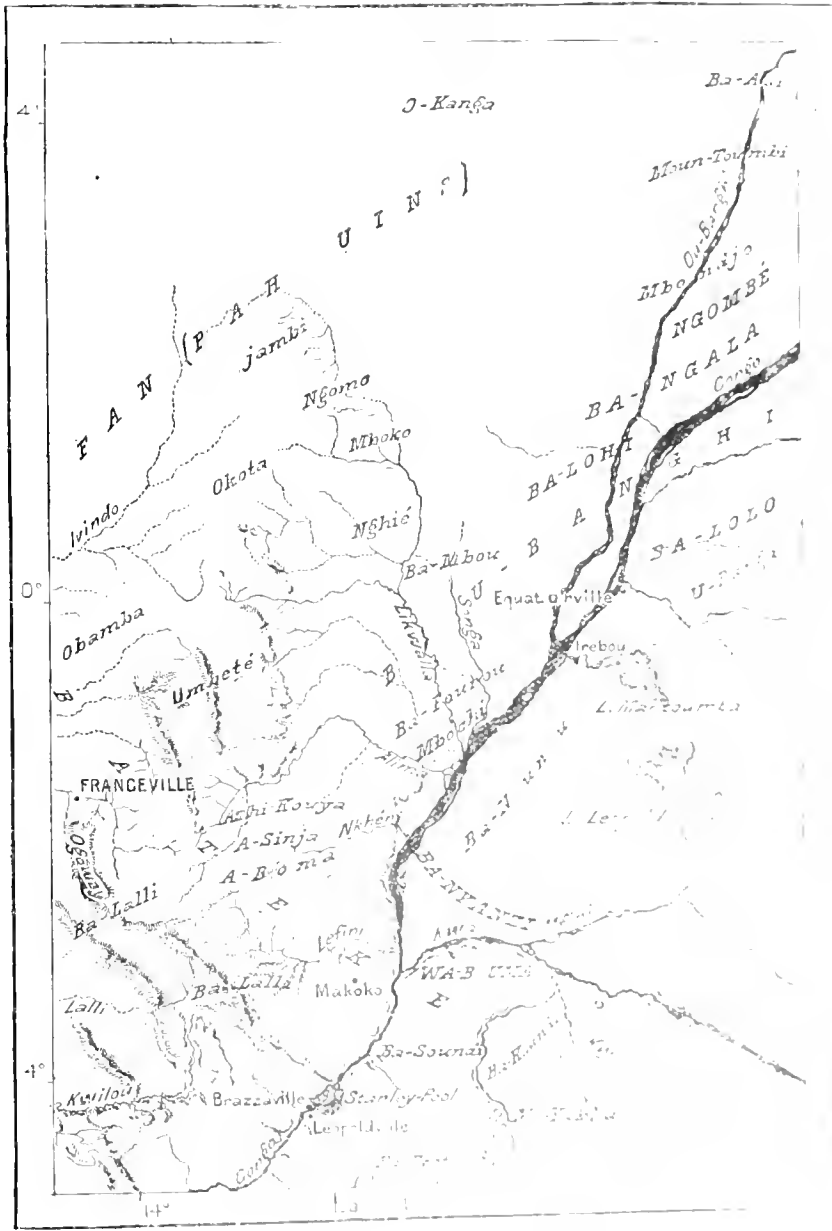


Ogway basin, and southwards on the district watered by the Nkheni and the Lefini. They even cross to the left side of the Congo south of Kwamouth, and their domain is altogether scarcely less extensive than that of the Bu-Banghi, although the several tribes differ greatly one from the other. The Ba-Teke of the plateaux present marked contrasts to the Bu-Banghi, both in physical appearance and social usages. They are less robust, of smaller stature and less stout, most of them being so very thin that they have been compared to "walking skeletons." They are remarkably frugal, a little manioc and a few grubs or insects picked up on the way sufficing to support them even on the march. The women carry long sticks, furnished at the extremity with a little raw hemp, which serves to catch

the grasshoppers, the "Ba-Teke food," as they are called. Insects are taken by firing the grass, and the Ba-Teke are also partial to smoked toads, although prohi-

Fig. 245.—INHABITANTS OF THE FRENCH CONGO.

Scale 1 : 70,000,000.



ring to all other meat the roasted larvae of certain species of beetles. In times of war they also still practise cannibalism, eating the captives and their families. Despite their frugal fare the Ba-Teke are brave workers, taking their share with

the women in field operations, and raising crops of manioc, millet, maize, sugar, ground-nuts, and tobacco. The women are much respected, being allowed to speak in the public assemblies, and making their voices heard on all important occasions. The group of habitations, well kept and usually perched on some eminence, has its cluster of palms, whose size indicates the age of the settlement. The foliage of these palms serves to manufacture the native loin-cloths, as well as the robes of larger dimensions worn by the chiefs. From other varieties they extract oil and wine; but, like the Bu-Banghi and Ba-Yanzi, the Ba-Teke at last kill these valuable plants, which when leafless and of a sombre grey present the appearance of so many gibbets set up on the hillside.

The plateau whence flows the Alima is held by the Ashi-Kuyas, who also belong to the Ba-Teke confederacy, and whose great chief, Nghia-Komunghiri, shares the temporal power with the Makoko. According to Jacques de Brazza, the Ashi-Kuyas are the most skilful weavers in the whole of the French Congo territory. Lions and leopards are numerous on the banks of the Nkheni; but they rarely attack men, whereas on the U-Banghi these rapacious animals are much dreaded. The heron, here a fetish bird, builds in multitudes on the trees overhanging the river-banks.

On the French side of the Congo the riverain tracts below the Nkheni confluence are occupied by a few stations, such as *Ngatchu*, on a rocky headland, which derives some importance from its position a little below the junction of the Kassai and Congo opposite *Msuata*, on the left bank.

The chief station in the French Congo domain has received the name of *Brazzaville*, from the bold and persevering pioneer who opened up this region to science. It was near this spot that Brazza "buried the hatchet," and made peace between the blacks and the Falla, or "French" whites. "We will bury war so deeply that neither we nor our children shall be able to dig it up, and the tree that shall take root here shall be as a witness to the alliance between the whites and the blacks." Thus spoke the chiefs, to whom Brazza replied: "May peace last until this tree produce bullets, cartouches, or powder!" It was in 1880, fifteen months before any other Europeans effected a settlement on the opposite side of the Congo, that the French took possession of the port of *Mfua*, since called Brazzaville. It was abandoned two years later, but again definitely occupied in 1883.

This part of the French Congo is inhabited chiefly by the Ba-Lalli, a half-caste Ba-Teke tribe, who are still cannibals, eating the bodies of slaves and of the caravan people who die in their territory. On the arrival of the Europeans the complaint was made that bodies were now buried instead of being exchanged for sheep, bananas, and manioc. All freemen, however, are buried by the Ba-Lalli themselves with many strange rites. At the death of a Mo-Lalli the corpse is placed in a long wooden cylinder, which is kept for a month in the house, as if it were still alive. On the day of burial fetishes are placed on the cylinder, which is decked with feathers, foliage, and ribbons, and then wrapped in cerements until its bulk is about doubled. The lofty bier containing the coffin is then fixed on a pivot supported by three long parallel poles, the bearers of which start off at a



running pace, all the time whirling round and round with the pivot, which is doubtless done to scare or distract the evil spirits. On arriving, panting and perspiring, at the grave, each resumes the clothes he has lent for the procession, and the body is shot into the pit, care, however, being taken to keep open the aperture made at one end of the coffin, just above the mouth. Through this opening palm-wine is supplied to the deceased, who is still regarded as sharing in the feasts of the living.

A few hours' journey to the south-west of Brazzaville, in the vicinity of the rapids, the Catholic missionaries have founded the station of *Linzola*, which has acquired some importance as a model farm and as a centre of acclimatisation for the plants and animals of the temperate zone.

### THE KASSAI BASIN.

This vast and populous region, abounding in running waters and fertile valleys, has already been shared politically between the Congo Free State and Portugal. But the land itself is still largely unoccupied, and even very imperfectly surveyed, many tracts 4,000 or 5,000 square miles in extent not having yet been visited by any explorer. Hitherto very few European stations have been founded in the Kassai territory, above the Kwango confluence, and the so-called "Portuguese," or half-caste negro traders, have established themselves in very few villages for the purpose of exchanging cloth for ivory. Nearly the whole region is still divided into petty states, some almost completely independent, others real vassals of the Congo State, which has constituted the Kassai a separate administrative district.

The eastern streams rising in the swampy divide, where the Lua-Laba and Zambese affluents also have their source, water the districts bordering on Mshu's empire and inhabited by tribes both of Rua and Lunda stock. In some villages these tribes are even intermingled, the poor Vua-Lunda, clothed only with a leathern apron or a bark loin-cloth, associating with the rich Vua-Rua, who, like those of the Lua-Laba, are also relatively more civilised. The copper mines found in this region were being worked by these natives at the time of Cameron's journey.

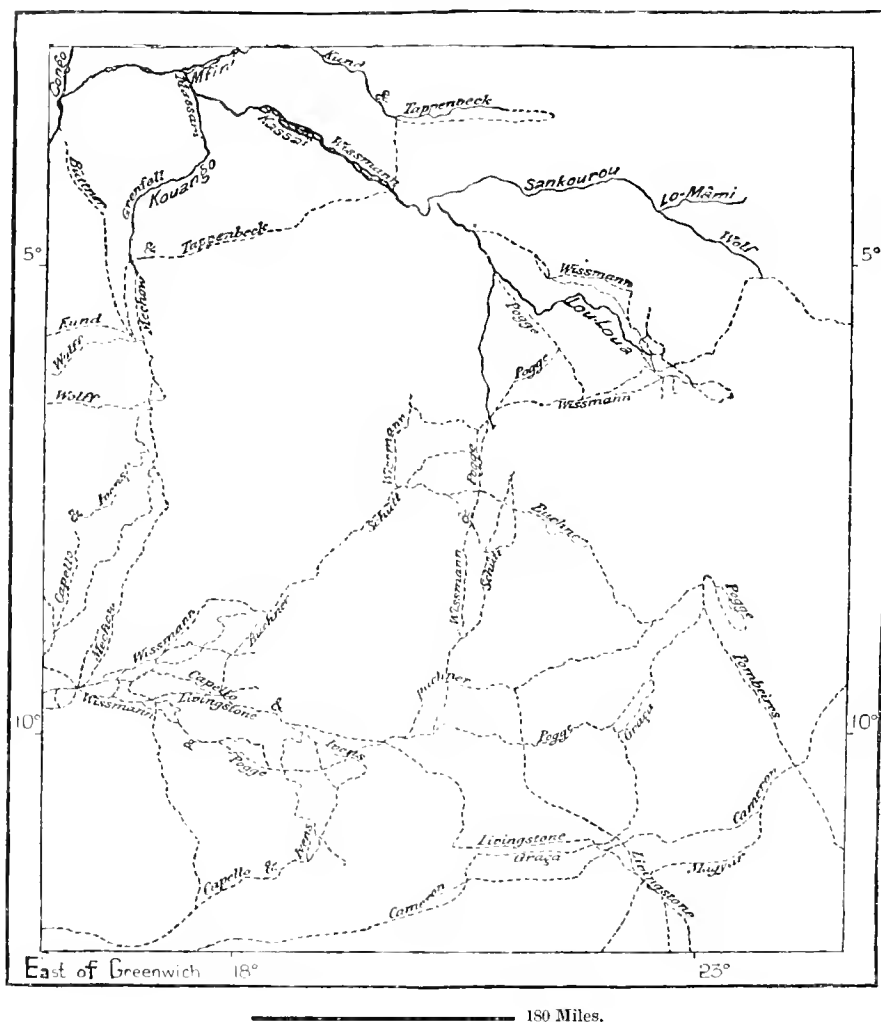
The hilly district between the Lu-Bilash and Lu-Mani headstreams of the Sankuru is occupied by the Ba-Songe, the Ba-Sangé, and other peoples of the same stock and speech. West of the Lu-Bilash these natives are known by the name of Ba-Luba, while still farther west, on the banks of the Lu-Lua and Ku-Lua, are called Tu-Shilange and Ba-Shilange. The Ba-Songe are one of the most of the most athletic Negro races, although their features are somewhat suggestive of the bull-dog. They are also intelligent and industrious, skilfully manufacturing iron and copper, clay and wood, and producing earthenware, woven fabrics, and leather work ornamented with considerable taste. In striking contrast to most of the African peoples, the men of the Ba-Songe tribes perform all field operations, leaving to the women the household duties and industrial arts. They are also

expert hunters, but their religious observances are still occasionally associated with cannibalistic practices.

Till recent years the Ba-Songe maintained no direct relations of any sort either with Europeans, or even with the Negro traders of the western Portuguese possessions. The Arab caravans had penetrated from the east no farther than the

Fig. 246.—CHIEF ROUTES OF EXPLORERS IN THE KASSAI BASIN.

Scale 1 : 9,000,000.



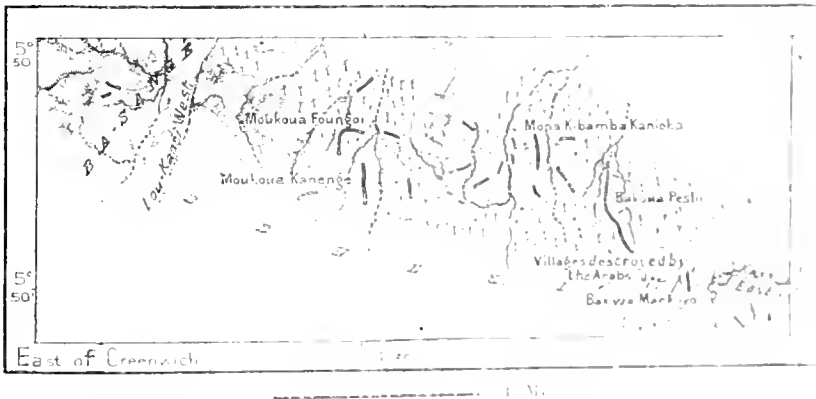
territory of the Kalabwe tribe on the left bank of the Lo-Mami. Hence when Wissmann and Pogg traversed this region in the year 1881 the people threw themselves at their feet as if they were gods or demons. In the white strangers' caravan everything was new for the Ba-Songe, who had never seen a pack-ox, firearms, or the thousand curious objects brought from unknown lands to be bartered for ivory and provisions. The white men were well received in the

western districts, where no Arabs had yet been seen. But in the east, where these Semites had already made trading expeditions, all the villagers fled in terror, or entrenched themselves behind their palisaded enclosures. They even went the length of slaying the cattle which they were unable to drive away fast enough to places of safety beyond the reach of the strangers.

The Ba-Songe are a numerous nation, their territory being no less densely peopled than many of the more crowded parts of Europe itself. On all the interfluvial sections of the plateau are developed interminable villages, which have been compared to "black caterpillars crawling over the grassy surface of the prairies." Two or three parallel streets lined by houses and gardens wind along the crests of the escarpments, and but for the shape of the huts, the traveller might fancy himself in Upper Normandy between the river valleys flowing to the Channel. But the Ba-Songe villages are larger than those of the north-west of France, and the German explorers took no less than five hours to traverse one of the more elevated settlements from end to end. The population of the larger

Fig. 247.—BA-SONGE VILLAGES.

Scale 1 : 1 100,000.



groups is estimated by Wolf at nearly fifteen thousand, and the traveller was received by the village chiefs at the head of over a thousand warriors.

Each of these long lines of habitations forms a little autonomous republic which however recognises the virtual suzerainty of a king, who resides in the Koto country, on the left bank of the Lu-Bilish. This potentate is a great fetishman, who enforces obedience through fear of his magic arts. But P. F. and Wissmann he met more formidable fetishmen than himself, for having refused to let them proceed on their journey, the travellers spent some days discharging rifles, sending up rockets, and burning Bengi-bags. This produced the desired effect, and the king issued immediate orders for the departure.

Amongst the Ba-Songe, as well as in the M-Nyoni territory, a few of the villages are occupied by communities of those timid and dwarfish (B. Lwa Vwa Twa) tribes, who are regarded as survivors of the original "peoples" of the country. They are found along the banks of the Lu-Mandimba, where they live in small groups.

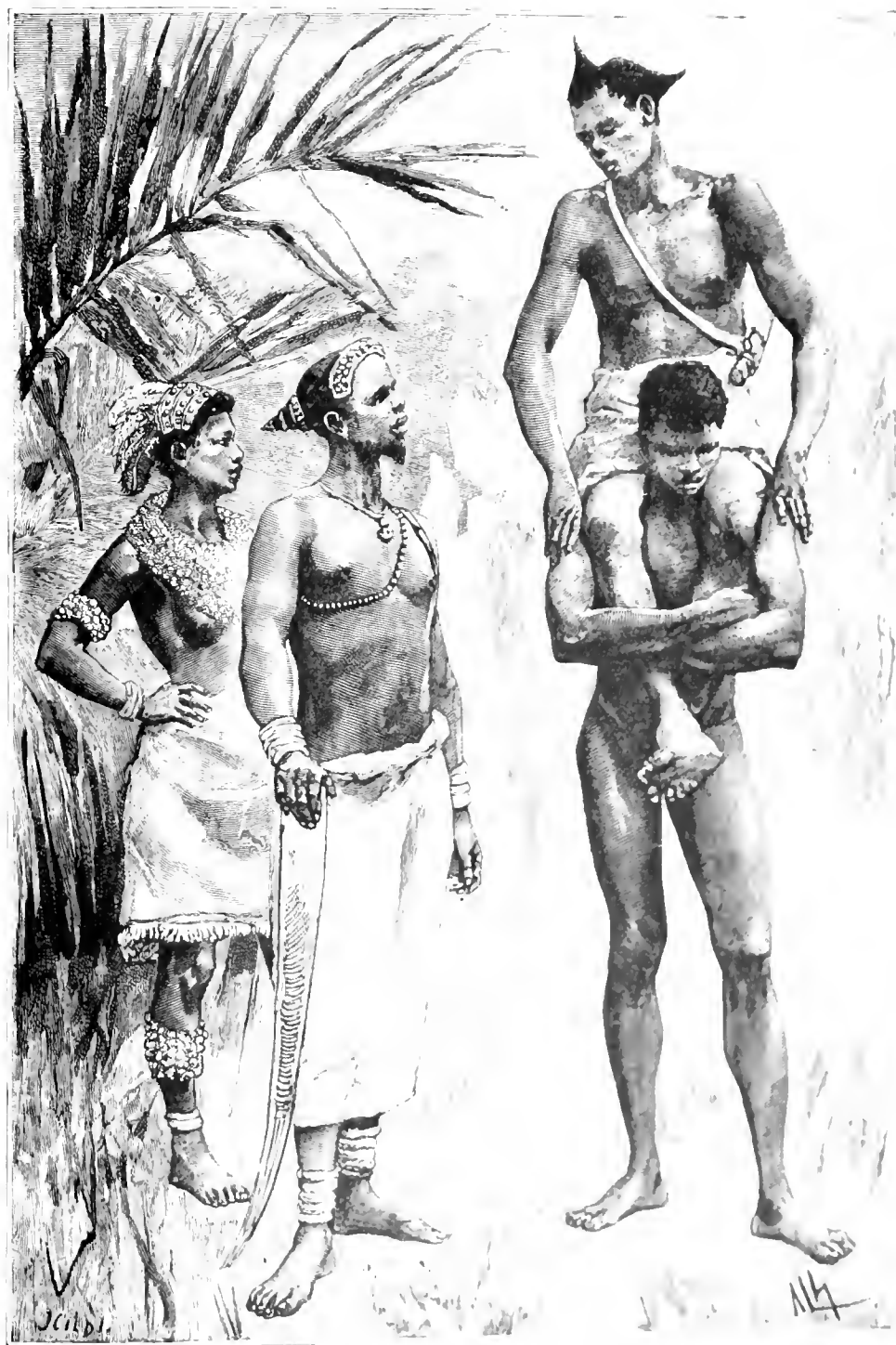
branches of large forest-trees. These woodlands also afford shelter to myriads of grey parrots, which at sunset rise in dense clouds above the Lu Bilash, Sankuru, and Lu-Kenye.

The Lu-Lua, the Kassai, and their various headstreams chiefly water the territory of the Ka-Lunda, a numerous nation bearing the same name and perhaps belonging to the same stock as the populations occupying the southern shores of Lake Moero. The Ka-Lunda of the Kassai region are the dominant people in the land formerly ruled by the Muata Yamvo, and their name was sometimes given to his empire, which was the most extensive in the whole of Central Africa. West of the Lu-Bilash they occupy all the territory about the sources of the Lu-Lua and Kassai as far as the Zambese; under the name of Ba-Lua they inhabit the districts where the Lu-Lua emerges on the plains from the narrow upland valleys, and beyond the Kassai they also hold a great part of the intermediate zone between the elevated plateau and the low-lying tracts.

The Ka-Lunda are a taller and stronger race of Negroes than those of the Portuguese possessions on the west coast. Their complexion is also lighter and their lips less tumid; but the nobles have the practice of compressing the heads of their children in such a way as to give a monstrous shape to the posterior part of the skull.

Far less industrious than the Ba-Songe, the Ka-Lunda are to a large extent dependent on their neighbours for the various utensils and other objects of which they stand in need. From the Kiokos of the south-west they obtain woven goods and ironware; from the southern and south-eastern tribes copper goods, and in some places they have even no salt, for which they are obliged to substitute the ashes of certain alkaline herbs. Next to those of the Vua-Twa pigmies, their hovels are the most wretched in appearance in the whole of the interior of the continent, being little better than mere heaps of hay usually not more than 8 or 10 feet high.

The Ka-Lunda are hospitable, and of a kindly, peaceful disposition, at least in districts not visited by the foreign traders, from whom the people learn the arts of duplicity, falsehood, and chicanery. In the neighbourhood of the royal residence, idleness and parasitic habits also tended to demoralise the natives, for the Muata Yamvo's state was a veritable feudal empire, in which all the vassal lords were bound to pay tribute. The various *monos*, and *muenes*—that is, chiefs—rendered homage to the *Muata*, or sovereign, paying him contributions derived from the imposts levied on their respective subjects. These imposts, however, were not fixed, but varied according to the resources of the different provinces. Thus one would offer an elephant's tusk, an animal taken in the chase, or a lion's or a leopard's skin; another fruits, manioc, corn, cloth, or salt, and so on. Nor were there any clearly defined periods for raising these contributions, so much depending on the distances from the capital, the rivers or swamps to be crossed, the commencement and duration of the rainy season, and suchlike circumstances. Usually the caravans of the more remote vassals presented themselves at the royal court once a year, while the chiefs of neighbouring tribes, being more under the effective control of the supreme





authority, were fain to make their appearance several times in the course of the year, and always laden with presents. It also frequently happened that the feudatories in the more distant provinces neglected to discharge their obligations when they felt themselves strong enough to sever the tie of vassalage binding them to their liege lord. Thus the limits of the empire had never ceased to fluctuate from the establishment of the dynasty of the Lunda sovereigns till 1890, when the then reigning king accepted the suzerainty of the Free State.

At the death of a sovereign the new *muata* did not succeed his father by right, but had to be chosen amongst the children of one of the defunct king's two chief wives. The selection was made by four chief electors, that is, the first and second "Sons of the State," the "Son of Arms," and the "State Cook"; but their choice had still to be ratified by Lukoshesha, "Mother of the kings and the people." This lady herself, who was also a queen possessing several districts in absolute sovereignty, was elected from amongst the daughters of the two chief wives by the four great ministers, and their decision was absolute only after its confirmation by the king. This institution of the "universal mother," which seems a survival of ancient matriarchal usages, is an all the more curious phenomenon, that amongst the Lundi people generally the inheritance follows directly from father to son, and not from uncle to sister's son, as is the case amongst the Kiokos. Of all the inhabitants of the land, Lukoshesha alone stood above the laws; she alone was exempt from the Muata Yamvo's authority. Being mother of all she could not have a husband, and the person chosen by her bore only the name of favourite slave. Nor could she have any children, so that all born to her were at once destroyed.

Immediately after his nomination, the Muata Yamvo was presented with the insignia of authority: the iron sickle, the parrot-feather crown, the elephant-skin bracelet, the pearl and metal necklace, the grand carpet of the empire, and the order of the *lukano*, which corresponded to the orders of chivalry instituted by European sovereigns. Then he camped out for a night near the Kalangi River, in order to renew the strength of the realm by breathing a free atmosphere and bathing in the sacred stream. He was even required again to assume the part of creator, producing afresh the new fire at which all the hearths of the kingdom had henceforth to be kindled. By the friction of pieces of stick rubbed one against the other he created the flame, emblem of his divinity. For he was now a god, absolute master of the life and freedom of all his subjects; he appointed all state functionaries, ennobled or degraded whom he chose, took possession of all he fancied.

The *mussamba*, or imperial residence, was displaced with every new reign. But the site chosen lay always within the great plain limited by the Kalangi and Lu-Iza, both eastern affluents of the Lu-Lua. For the capital must needs be situated in the neighbourhood of the holy place, where dwelt the first Muata Yamvo, that is, near the right bank of the Kalangi, and not far from the river gravel-bed, where are deposited the remains of the fourteen sovereigns of this dynasty who have successively reigned over Lunda-Lund. During Poggel's journey of 1876 the *mussamba* was at *Kisimene*, on the left bank of the Kalangi. Ten years later





According to their traditions the Ba-Luba came from the south-east, that is, from the Upper Congo or Luta-Luba valleys. In the north-western districts, where they have penetrated farthest, they have taken the name of Tu-Shilange or Ba-Shilange, which appears to be that of the aboriginal populations now merged with the invaders. The various Tu-Shilange tribes, however, differ greatly in appearance, customs, and political condition among themselves. Some are still in the savage state, while others have already acquired a certain degree of civilisation. The most important part of their territory, both as regards population and trade, is the district known by the name of Lubuku, that is to say, "Friendship," and here alone the whites have hitherto succeeded in founding settlements. Toward the year 1870 the inhabitants of this district, which was not yet known by such a pleasant name, refused to enter into relations with the strangers, withholding from foreign traders the right to penetrate into their territory. Then arose a discussion on this point between the young and old, the former being desirous of changing the whole state of affairs, while the latter insisted on maintaining the commercial barriers. The king, with his sister, sided with the party of progress, and a civil war broke out. The result was that many old men and women were massacred, most of the survivors taking refuge on the right bank of the Lualaba, where they still occupy separate villages.

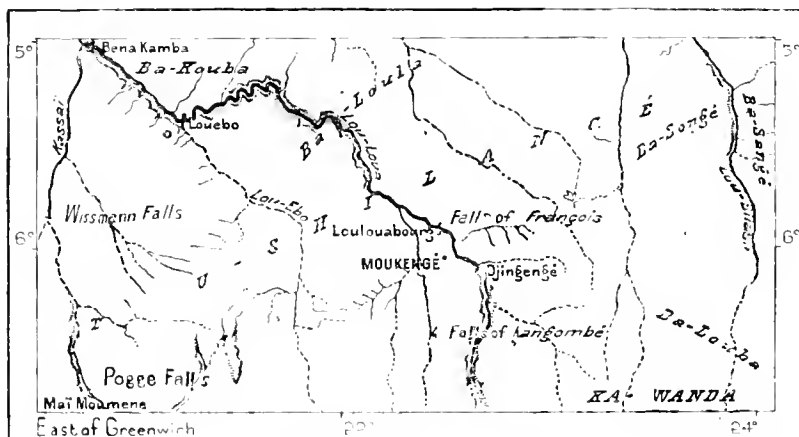
The political movement at the same time involved a religious and moral revolution. A new cult was introduced into the country, which earned for the inhabitants the title of Bena-Riamba, or "Sons of Hemp." According to the tenets of the new religion, all smokers of riamba, or "hemp," call themselves Bena-Riamba, and even interdict the use of arms in their villages. All are bound to observe the mutual rights of hospitality; everyone disposes of his life and property; executions are instituted on the ground of witchcraft, and various other crimes are sold by their parents. The flesh of goats is henceforth forbidden to be eaten, as animals recall the time when the young men were obliged to abstain from animal food.

before carrying off the bride. Religious ceremonies are now in fact reduced to the simple custom of assembling at night to smoke hemp in common. It is a weird sight to behold all these tattooed and naked people, after inhaling the fumes of the "weed" from a large calabash, coughing spasmodically, yelling, throwing themselves into paroxysms of frenzy, uttering forebodings, or else plunged into a state of stupor under the influence of the narcotic.

The riamba, which unites all in a common brotherhood, may, however, also punish the guilty. Nearly all the old penalties, and especially the ordeal by poison, have been replaced by the administration of hemp, the fumes of which have to be inhaled by the criminal until he falls senseless to the ground. But on his recovery he is marked with white clay on breast and forehead, in order to assure him of pardon and admit him again to the assembly of friends. To meet the

Fig. 249.—LAND OF FRIENDSHIP.

Scale 1 : 4,000,000.



enormous consumption extensive tracts of land round about the Bena-Riamba villages are set apart for the cultivation of hemp. But this universal use of the narcotic in their religious practices is not free from evil consequences, diseases of the chest as well as insanity having become very common since its introduction.

It is deplorable that the Ba-Luba are subject to this cause of deterioration, for amongst all nations of Africa they are distinguished by their intelligent curiosity and their thoughtful turn of mind. Wissmann goes the length of calling them a "nation of thinkers." The interrogative "why?" which is so rarely heard in its serious sense amongst the African peoples, comes natural to their lips; nor are they to be put off with an evasive answer. Their great personal courage, and surprising skill in following up the scent of the quarry, would make them excellent scouts in the service of Europeans. They despise routine, and at their feasts are always inventing something original and unforeseen. Their chief ceremonies are

those associated with the reception of caravans, which they welcome with shout and dancing, drum-beating and volleys of firearms. All are arrayed in their best attire, while the traders deck themselves with the choicest of their wares. Even the members of convoys from vassal tribes, although subjected at first to a considerable amount of horse-play and rough usage, are in the end indemnified by feasts and presents for their disagreeable reception.

The Ba-Luba have preserved the custom of the "brotherhood of blood," which survives also amongst numerous other African populations, as well as amongst the European Slavs, but which is unknown in the Lunda country. When the young men have drunk of each other's blood their property becomes almost common, for they mutually help themselves to whatever takes their fancy, without a thought of making reparation. This right of "share and share all round" is extended even to the various members of the respective families. The sociable character and cordial spirit of brotherhood by which the Ba-Luba are animated is revealed even in the manner of parcelling out their lands. Instead of keeping their plantations apart and working alone in sullen isolation, the peasantry delight to keep together and till all the fields in common, although really disposed in distinct allotments.

The Land of Friendship is divided into two principal states, which are usually designated after the names of their kings—Nukenge, the suzerain, and Jingenge (Tchikenge), the vassal. The King of the Bena-Riamba is the universal lord of the soil, but the plants growing on it belong to the toiler who has raised them by his labour. A fourth part of all game killed in his empire belongs to him by right, and he also levies an impost on all merchandise imported by caravans. Maintaining commercial relations with all the surrounding chiefs as well as with the Portuguese traders, he has also desired to contract alliances with the sovereigns of Europe. Through the agency of Pogge he has forwarded a letter to the "ruler beyond the waters, to the commander of all the peoples," begging for numerous presents, amongst others for a medicine "to prevent people from dying."

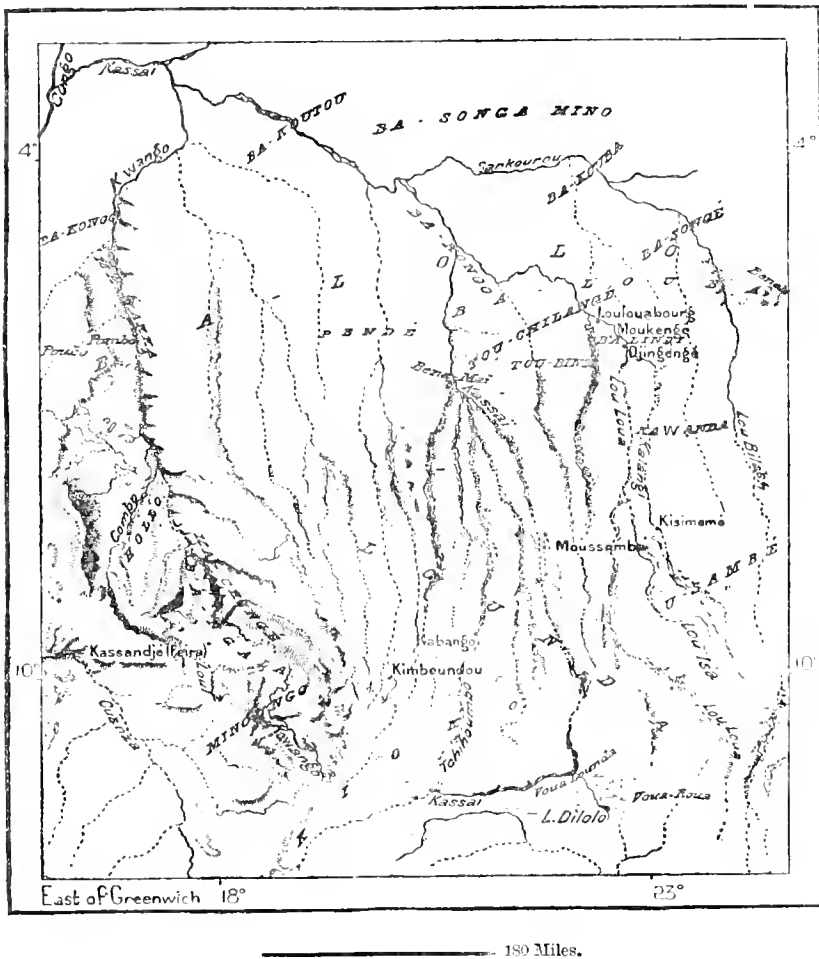
Soon after their arrival in the Ba-Luba territory the first explorers perceived that a European station would be well placed in such a productive land inhabited by the intelligent Tu-Shilange people. In 1884 Wissmann founded the post of *Luluaburg*, at an altitude of 4,760 feet, some 12 miles to the north of *M'bandaka*, on the left bank of the river which gives its name to the station. Despite the difficulty of supplying it with provisions, this outpost of the Congo Free State has hitherto been maintained and even enlarged, and it was at this important strategical station that in October, 1895, the Belgian forces under the command of Captain Lothaire obtained a complete victory over the native insurgents. Thus were stamped out the last embers of the conflagration which had been kindled amongst the Banlu peoples of the southern regions by the Arabs of the Upper Congo. The great disadvantage of *Luluaburg* is due to its position on a part of the river which offers no continuous line of navigation between the Kasaï and the Congo, for the stream is obstructed by cataracts at several points farther down a tributary, the confluence of the Lu-Ebo. At this confluence, about 420 miles from *Luluaburg*, the

lowing the winding of the stream, has been founded the fortified station which is regularly visited by the steamers of the Congo State. But from a third to half a mile higher up on both rivers the navigation is completely interrupted by falls and rapids.

This region of the confluence belongs to the Ba-Kuba nation, which differs altogether in language and customs from the Ba-Luba, and which was formerly said

Fig. 250.—INHABITANTS OF THE KASSAI BASIN.

Scale 1 : 9,500,000.



to be ruled by a potent wizard, who condemned all foreigners to death. Nevertheless the traveller Wolf at last succeeded in penetrating into this region in 1885. The Ba-Kuba, who are a very numerous people, dwell north of the Lu-Lua in the clearings of the forests which stretch away to the Sankuru. They hold no intercourse with the Ba-Luba except through the agency of their vassals, the Ba-Keta, who occupy the banks of the Lu-Lua. According to their traditions they come

from the north-west, whereas the Ba-Luba claim to have arrived from the regions situated towards the south-east.

Scattered in isolated groups in the midst of the forests are numerous Ba-Twa communities, who, however, maintain excellent relations with their Ba-Kuba neighbours. The Ba-Twa aborigines of both sexes measured by Wolf ranged in stature from 4 feet 4 inches to 4 feet 9 inches in height. But notwithstanding their diminutive stature, they were all symmetrically built with good proportions, a yellowish-brown complexion, and, like the Akkas of Monbuttu Land, noted for their marvellous agility. These Ba-Twa tribes are ignorant of agriculture, living entirely on the produce of the chase. In exchange for a portion of the game they obtain from their neighbours the manioc, arms—such as arrows, swords, and knives—and all other articles of which they stand in need.

The Upper Kassai basin has not yet taken in the history of Central Africa the position to which it seems entitled, and which it cannot fail some day to acquire. The waterparting running parallel with its upper valley, between its affluents and those of the Zambese, is already marked out as the chief highway leading from the Atlantic province of Benguela to the region of the great lakes in the Upper Congo Valley. This route has already been followed by numerous Portuguese caravans, as well as by Livingstone, Cameron, Capello, and Ivens in their journeys across the continent, and all alike speak of the fertility of the land and the peaceful disposition of its inhabitants.

In the south-western region watered by the numerous streams flowing to the Kassai the dominant people are the enterprising Kiokos, or better Tchihokos, who seem destined sooner or later to take a leading part amongst all the tribes dwelling south of the Congo. At the time of Livingstone's journey, the Kiokos had not yet reached the Kassai basin; yet in many places they are already masters, although yielding a certain homage to the Portuguese. The unanimous testimony of their neighbours indicates the southern region as the land of their origin, and for at least three centuries and a half before the recent migrations, they appear to have occupied the upland tracts lying about the sources of the Cuanza and of the Cuando, one of the great affluents of the Zambese. Here they dwelt by the side of the Ganguellas, whom they greatly resemble in speech and customs, while also betraying certain affinities with the Lundas, whom, however, they certainly surpass in enterprise and intelligence. The Kiokos are great hunters, but rely chiefly on industrial pursuits for their support, being specially noted as skilled forgers and manufacturers of arms and wickerwork articles.

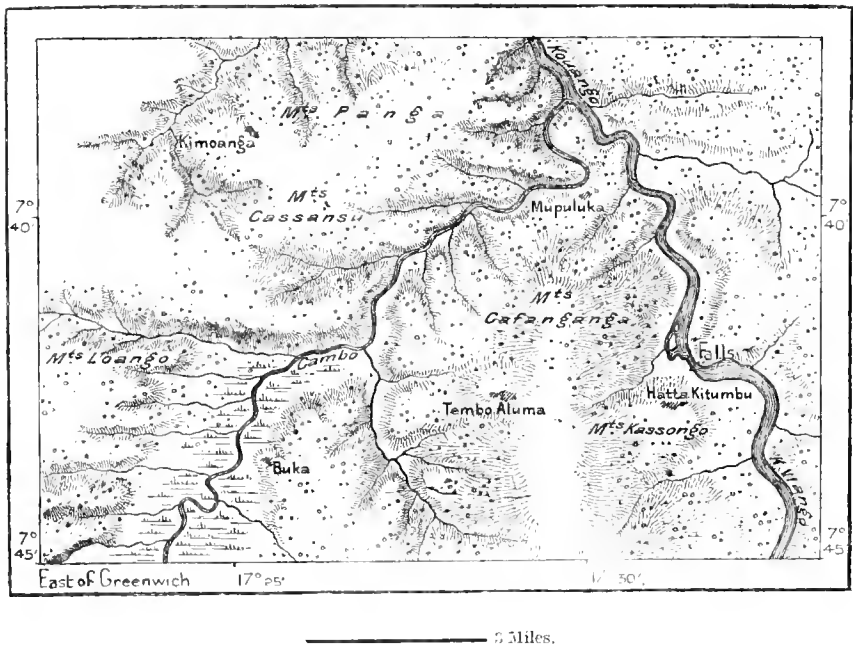
The chief market in the region lying between the Kioko and Lunda territories is *Kimbundu*, which stands at an altitude of 4,400 feet above the sea on the left bank of the Lu-Vo, which flows through the Luu-Nge to the Kassai. But in 1876, when Kimbundu had a few European structures belonging to a trading merchant, the centre of traffic has been displaced north in the direction of the Kassai, where several villages, occupied by local chiefs, have a population larger than that of Kimbundu.

North of the Ba-Kuba territory the Kassai and the Luu-Nge traverse the Lunda

of the Pendés, Ba-Kongos, and other Bantu peoples, of whom little is known beyond their tribal names. Beyond the Sankuru dwell the Ba-Songe Mino, or "Songas of the Teeth," so named because they file to a point all the incisors. Although much dreaded as cannibals they deny the charge, which was certainly unconfirmed by anything seen by Wolf when he visited them in 1886. Lower down, about the Sankuru-Kassai confluence, live the unfriendly Ba-Kutu people, and still farther north, between the Kassai and the Lu-Kenye (Ikatta), follow the Ba-Senge, occupying straggling villages miles in extent and often containing several thousand inhabitants. The Ba-Senge, who are not to be confounded with the Ba-Songe and Ba-Sange nations, are noted for their relatively long legs

Fig. 251.—CONFLUENCE OF THE CAMBO AND KWANGO.

Scale 1 : 200,000.



and short trunk, while many have perfectly European features of the intellectual type. *Ga-koko*, their capital, so named from the local chief, is a very large place built, like all the other towns, in a clearing of the primeval forest.

#### THE KWANGO BASIN.

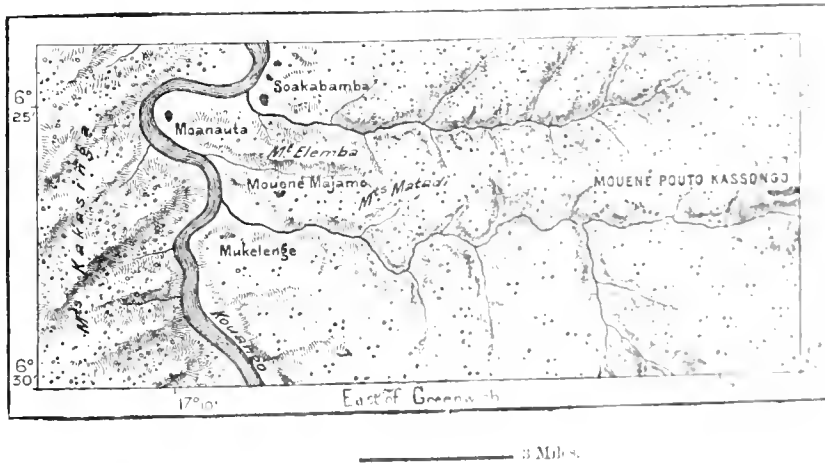
Although belonging to the Kassai system, the Kwango traverses a region which has had a very different historic evolution from that of Lunda Land. It is the true Zaire, which was known to the Portuguese since the sixteenth century, and whose name is still attributed to the Lower Congo. Many parts of its valley have

been regularly visited by Portuguese traders for the last three hundred years, and its markets have served as the intermediaries of traffic between the west coast and the uncivilised inland populations.

In the Upper Kwango Valley the dominant people are still the Kiokos of the Upper Kassai. Farther north follow the Minungos on both banks, savage marauders broken into numerous tribal groups without any political coherence. Under the influence of the Portuguese Catholics, to the national fetiches they have added wooden and copper crosses, and even crucifixes obtained from the white traders. Below the Minungo territory the western slope of the Kwango Valley is occupied by the Ba-Ngala, agriculturists and traders, who have long maintained direct relations with the Portuguese, from whom they have learnt to build large well-ventilated houses with gables and high-pitched roofs. Slaves are no longer

Fig. 252.—RESIDENCE OF THE MUENE PUTO KASSONGO.

Scale 1 : 250,000.



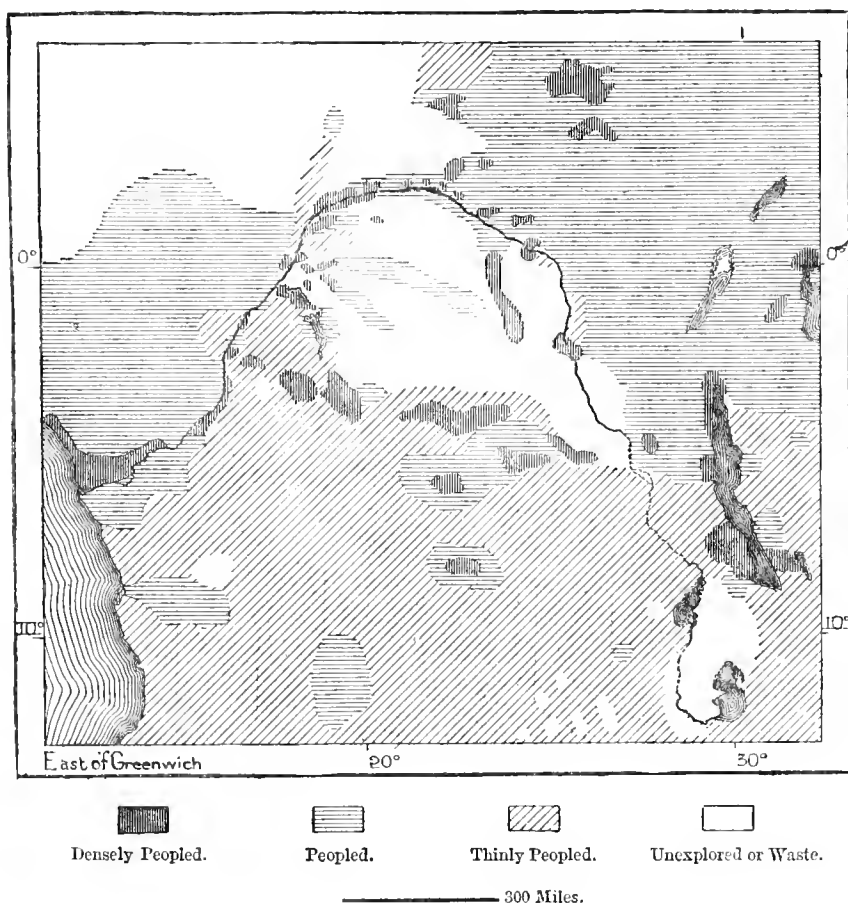
slaughtered at the graves of the great chiefs, but the succession is still in the female line, to the eldest son of the eldest sister. The yaga or kassanje, that is, the supreme *soba*, or chief of the Ba-Ngala nation, is elected by four dignitaries, whose choice is limited to the members of three families. According to the Portuguese traders, these electors mix a subtle poison with the cup presented to the new king, who is thus brought to the grave within a period of three years. The reigning sovereign, however, has dispensed with this inconvenient ceremony, preferring to be master *de facto* if not *de jure*. The Ba-Ngala capital takes the name of *Kassanjé* from the king, although better known to the Portuguese by the name of *Faira*, or "the Fair." Here are effected the changes between the Portuguese traders and the Kioko and Lunda merchants from the interior. Till 1860 the Portuguese commanded at Kassanjé; but in that year a revolution broke out, the warehouses were plundered, the orange groves cut down, and of twenty-five traders

only seven escaped with their lives. Since then, however, the Portuguese suzerainty has been again accepted.

At the Kwango-Kassai confluence the ruling race are the Ba-Teke, although numerous villages are also occupied by the Wa-Buma, who are the same people as the A-Boma of the French Congo. These traders and boatmen come down from the Kassai to Stanley Pool, where they transfer their commodities to the porters by whom the exchanges are effected with the Lower Congo. The Wa-Buma are

Fig. 253.—DENSITY OF THE POPULATION IN THE CONGO BASIN.

Scale 1: 23,000,000.



an intelligent, industrious, and cheerful people, whose supreme chief is a queen residing at *Moshi*, a place of about three thousand inhabitants, crowning a high cliff on the right bank of the Kwa. On the bluff rising above the south side of the Kassai-Congo confluence stands the station bearing the English name of *Kwamouth*, given to it before the Kwa was known to constitute the lower course of the vast Kassai-Sankurn-Kwango fluvial system.

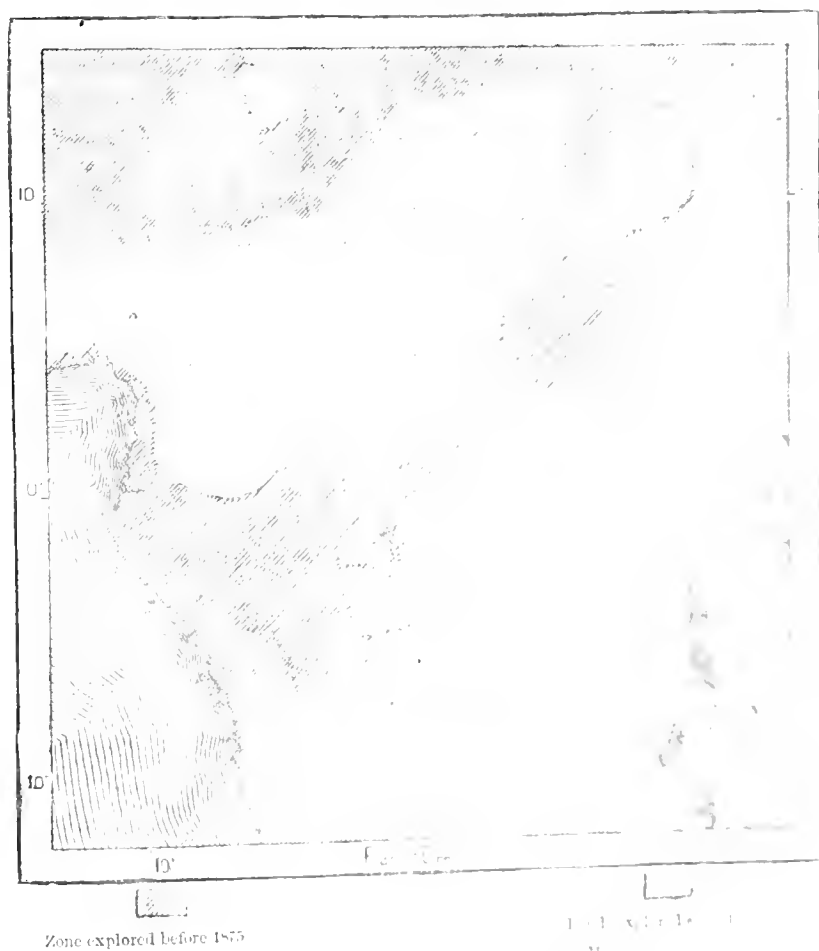
The stations of *Ngombe*, *Lukolela*, and *Bolobo*, on the left bank of the Congo above Kwamouth, although abandoned by the Congo Government, are still much-



frequented trading places. Bolobo, with its suburb of *Moy*, is a large town of from five thousand to ten thousand inhabitants, and is succeeded 30 miles higher up by *Tchumbiri*, also a populous place. Here the dominant riverain people are the Ba-Yanzi (Ba-Nyanzi), akin to the Bu-Banghi on the opposite side of the Congo. Although a treacherous, insolent race, addicted to orgies and human sacrifices, they show great ingenuity and artistic taste in the decoration of their

Fig. 254.—AFRICAN EXPLORATIONS SINCE 1875.

Scale 1:25,000,000



instruments, earthenware, and dwellings. Tropical music is said to emanate in the neighbourhood of Bolobo.

#### THE LOWER CONGO.

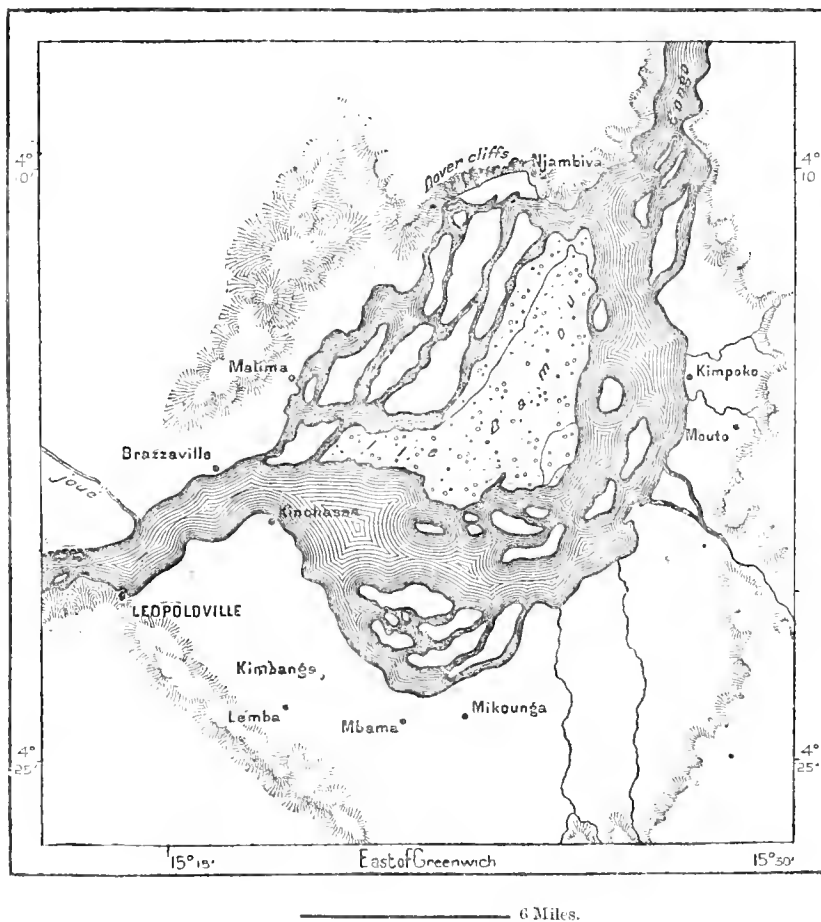
Hitherto the commercial and political energies of the Congo Free State have been mainly concentrated at two points, Stanley Pool above the city of Kinshasa, the

lower reaches between the Yellala Falls and the mouth of the estuary. The territory is doubtless of vast extent, with a population equal to that of many powerful European states; but the whites have scarcely yet everywhere secured a firm footing in the land.

At the close of the year 1898 the Europeans numbered altogether only one thousand five hundred, and on this handful of pioneers, scattered over an immense space and enfeebled or even decimated at times by the murderous climate,

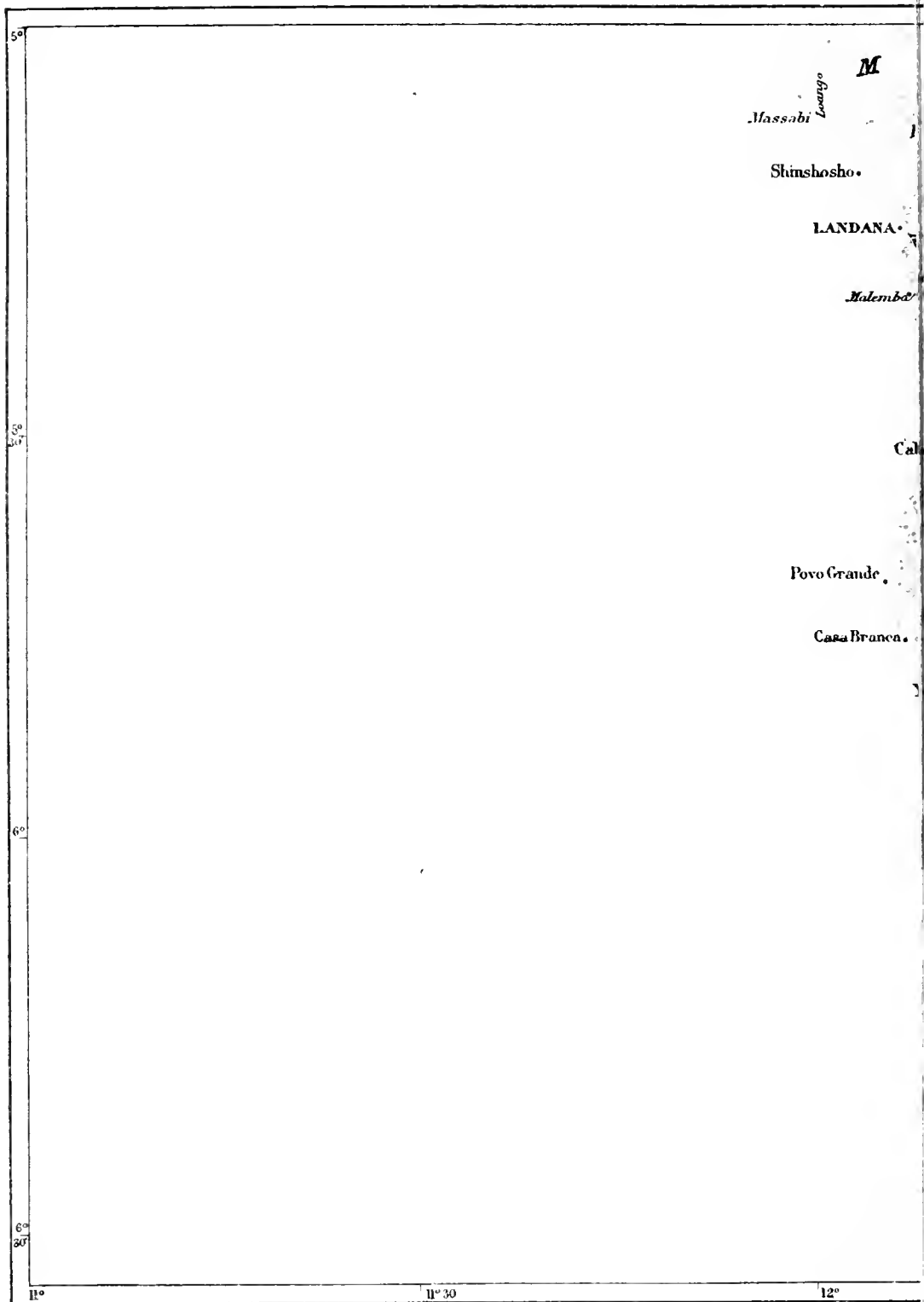
Fig. 255.—STANLEY POOL.

Scale 1 : 355,000.



devolves all the work of geographical and commercial exploration, the foundation, maintenance, and defence of the military stations, the organisation of the transport service by land and water, the equipment of troops, the pacification and government of the natives. The preliminary work of general survey has been successfully accomplished for the greater part of the navigable waters, and the splendid results obtained in the domain of geographical research since 1875 may well cause surprise. Administrative operations have been extended to all the Congo lands, though





A detailed map of the Bights of Benue and Biafra, showing the coastline from the Gulf of Guinea to the Gulf of Biafra. The map includes numerous place names in Portuguese and English, such as 'Munguento', 'Kakongo Songo', 'Tchima Bounda', 'Tchoa', 'Boma', 'Ponta da Lenha', 'Melilla', 'Kissanga', 'Nemba', 'BAXANA', 'French Point', 'P. Padrão', 'P. de S. Antonio', 'S. Antonio', 'Mangue Pequena', and 'Cabeça da Cobra'. It also shows major rivers like the 'Rio de São Paulo' and 'Rio de São Francisco'. The map is oriented with North at the top and includes a scale bar at the bottom.

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3200.	3200 to 4800.	4800 upwards.
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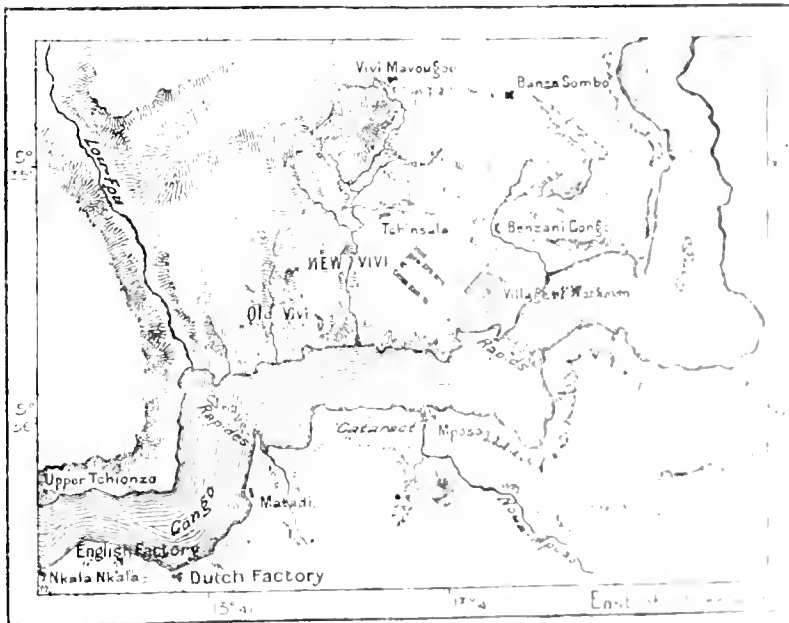


mainly restricted to the Lower Congo basin. In this region the work is carried on simultaneously by three European powers: the Congo Free State, which claims only the left bank above Manyanga, and the right bank as far as Noki; France, which is mistress of all the rest of the north side; and Portugal, which rules over the south side from Noki to the coast.

The shores of Stanley Pool, like the riverain tracts higher up, are inhabited by Ba-Teke tribes, which are here subjected to the direct control of the whites. Nowhere else in the whole Congo basin have more rapid changes been effected than at this point, where converge above the cataracts all the navigable waterways as far as the neighbourhood of Tanganyika. The chief station in this district is *Leopoldville*, built on a plateau commanding the western extremity of the Pool, and

Fig. 256.—OLD AND NEW VIVI.

Scale 1:56,000.



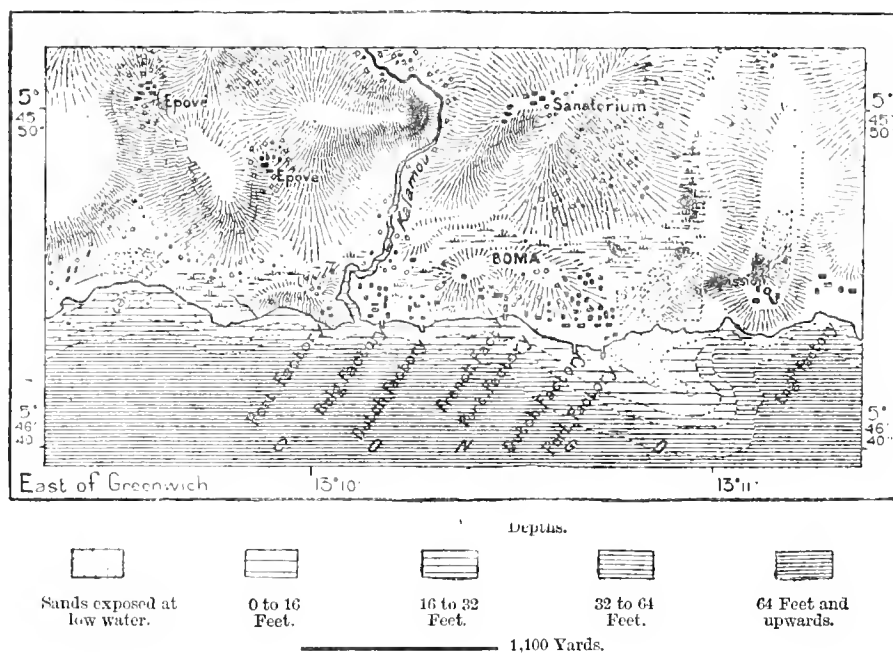
not far from *Ntamo*, capital of the southern Ba-Teke. Near the station stand the barracks of the Haussa and Ba-Ngala troops, and the dwellings of the English and American missionaries. But the industrial and commercial activity is centred chiefly at the village of *Kinkassa*, which serves as the port and nucleus of Leopoldville. Another station, at once religious and agricultural, was founded at *Kimpopo*, on a torrent flowing to the eastern extremity of Stanley Pool. The plain stretching south of the lake to the encircling hills of the *Chokya* park, containing several large towns, such as *Kinkassa*, *Leopoldville*, and *Matadi*, and the Dover Cliffs on the opposite side, these hills, which culminate in the *Mense Peak* (2,000 feet), consist of a harden limestone, terminating in numerous sharp points.

Below Stanley Pool the chief stations on the portage skirting the falls lie about midway between Leopoldville and *Mutali*, where the river presents a less rapid incline. Here is the English missionary station of *Lutete* on the left side, followed by the two villages of *Manyanga*, on both banks, and farther on *Lukungu* and *Voonda* (*Baynesville*), both on the south side. In the fertile and populous Kwilu Valley, which debouches higher up, are situated the towns of *Banza Makuta*, the chief market between Stanley Pool and Ambriz, and *Tungwa*, a great centre of the ivory trade.

Between Manyanga and Boma on the north side the dominant people are the energetic and haughty Ba-Sundi, who hold themselves as the equals of the whites, with whose forces they have frequently been in collision. Their chief pursuits

Fig. 257.—BOMA.

Scale 1 : 35,000.



are war and fishing, leaving to the women all other occupations, such as trade, weaving, wickerwork, pottery, and other industries. Near the Manyanga in this district lies the chief trading-place between Stanley Pool and the coast. Below Manyanga, whose well-attended fair is held every eight days, the fortified station of *Isangila* marks the point where the river plunges from a vertical height of about 16 feet, and then describes a great bend southwards to the point where the Lu-Fu River leads to *San-Salvador*, former metropolis of the Congo empire.

After being twice displaced as the capital of the Congo Free State, the station of *Viri* (*M' Viri*) has been finally abandoned, and the seat of Government removed farther down to Boma, on the same side of the river. Both the old and new stations of *Viri*, standing on plateaux commanding the right bank of the river a little below the last cataracts, were found to suffer from the same inconvenience





VIEW TAKEN FROM BRAGGATE

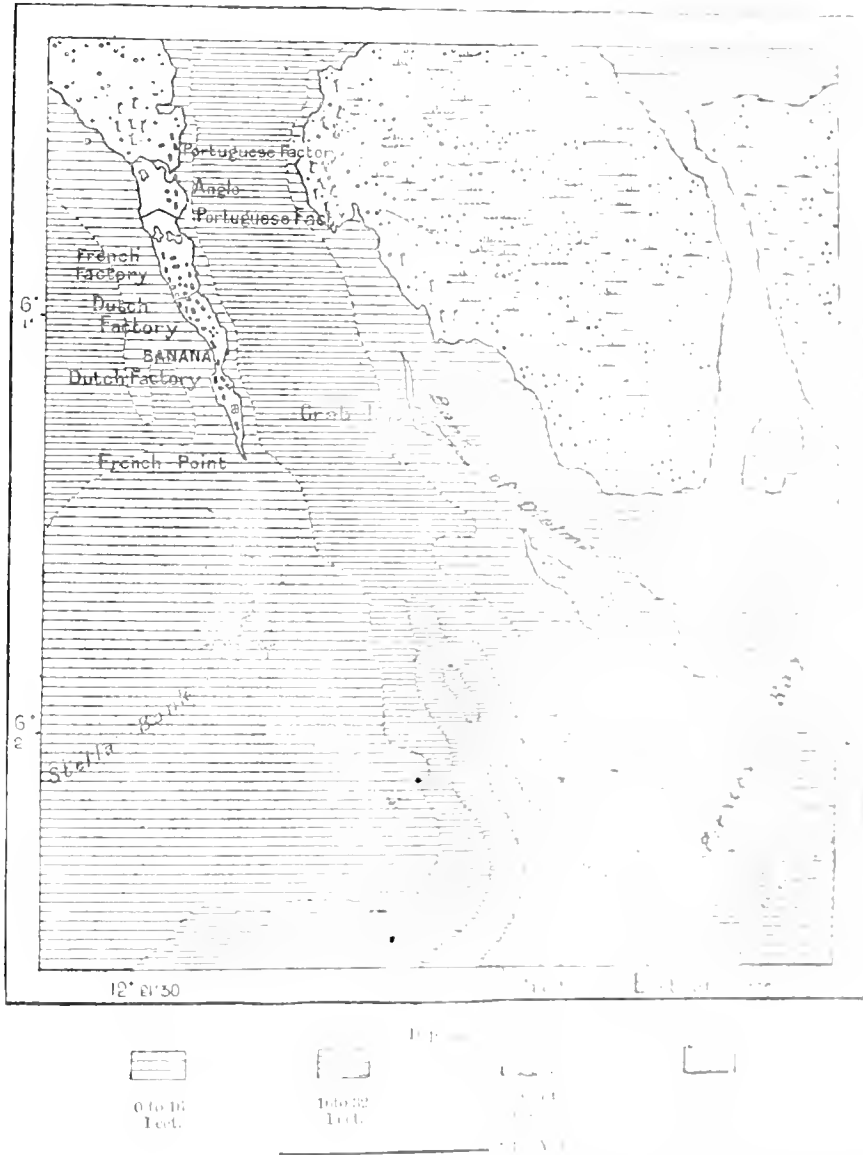
T. TACLO



of standing at too great an elevation above the stream, without the hoped-for advantage of a salubrious climate. Owing to the velocity of the current at the point, most of the vessels plying on the river are also obliged to stop a little farther down at *Matadi*, or the "Rock," on the opposite side. Below *Matadi* follow:

Fig. 258.—PORT OF BANANA.

Scale 1 : 55,000.



little riverain ports of *Fuka-Fuka*, *Nkoko-Nkoko*, giving room for the station of *Underhill* (*Tandou*), *Wanda-Wanda*, and *Nkoko*. *Porto* facing *Nkongolo* on the north side.

*Boma* (*M'Boma*, *Endomera*, city of the "Great Snake," *Grand Serpent*) formerly the chief market for slaves in the whole Congo region, and a town

with a "Marine" and several European factories at the water's edge connected by a road and a railway of light construction with the upper quarter standing about 300 feet above the right bank of the river. Nine local chiefs, still bearing the title of "kings," claim possession of the Boma district, and present themselves every month at the factories to receive the "customs," or ground-rent. Sugar plantations line the beach, and the neighbouring islets contain several villages surrounded by fields and palm-groves. In one of these islands are the graves of the kings of Boma and those of Tuckey's companions who perished in the disastrous expedition of 1816.

Boma already communicates by a regular service of five lines of steamers with Lisbon, Liverpool, Hull, Rotterdam, and Hamburg, while smaller boats ply on the estuary between Banana at the mouth of the Congo and Matadi, just below the last rapids. Above the Falls the river is navigated by other steamers transported thither piece by piece; and along the portage of 250 miles between Matadi and Stanley Pool goods are forwarded, partly by rail and partly by carriers, but at greatly reduced charges since the opening of the first section (164 miles) of the railway now being constructed between Matadi and Stanley Pool. This vitally important line, but for which the whole Congo State, notwithstanding its vast extent and boundless resources, "would not be worth a two-shilling piece" (Stanley), has been several years in progress, but is expected to be completed in the first year of the twentieth century.

Below Boma the chief station is *Ponta da Lenha*, on an islet close to the right bank of the estuary, beyond which the only other European settlement is *Banana*, occupying on the same side the terminal peninsula between the sea and the mouth of the Congo. Here are situated the Dutch factories, the most important in the whole Congo basin, followed higher up by several English, French, and Portuguese establishments, those of the Congo State lying about the middle of the peninsula.

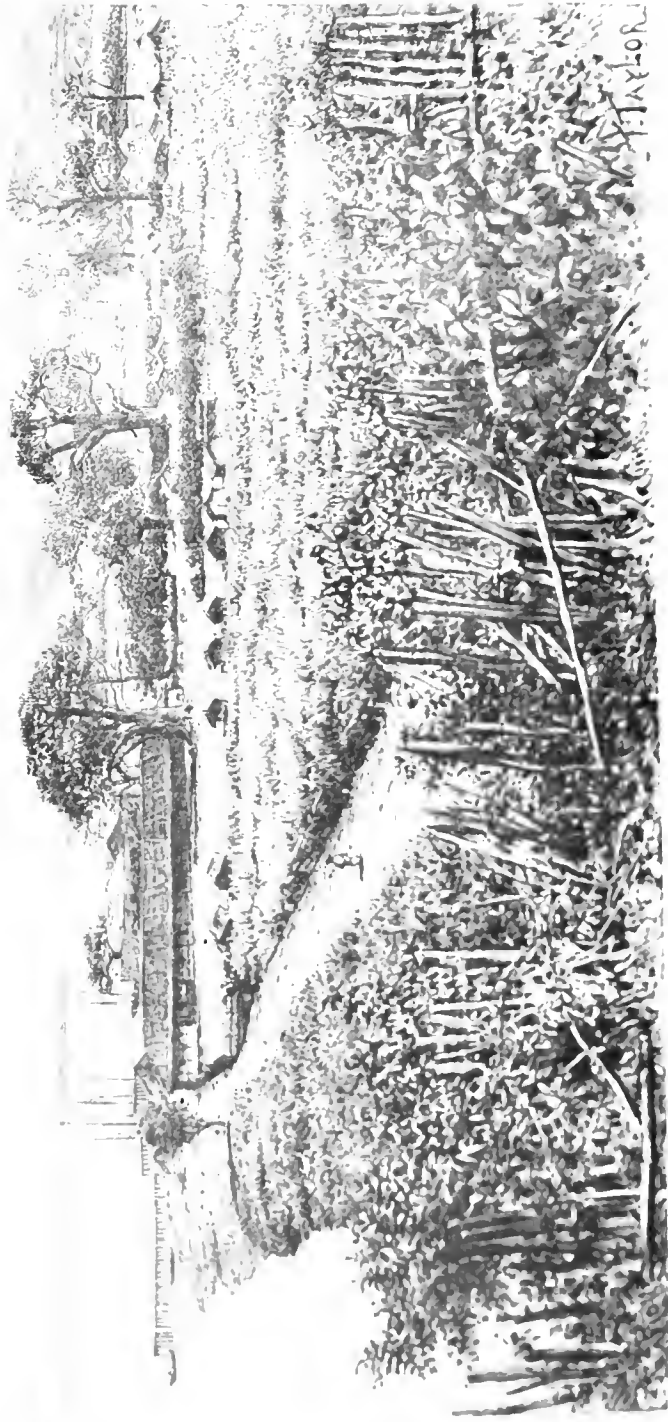
Although protected from erosion by piles, the site of Banana is continually threatened by the stormy waters, which in 1872 converted the peninsula into a temporary island. Nearly all the foreign trade of the Congo State is centred in the port of Banana, whose exchanges are already estimated at £1,600,000, of which £600,000 represents the exports, chiefly caoutchouc, ivory, palm-oil, and nuts.

The chief articles of the import trade are textiles, guns, powder, tobacco and spirits (now restricted to a small part of the territory).

Since the opening of the Congo by Stanley, the trade of the estuary has been increased fourfold. Yet all attempts hitherto made to introduce an European currency have failed, except at Banana and Boma. The natives obstinately refuse to take silver, accepting nothing but goods or orders (*mukanda*) which ensure their future delivery.

On the strip of seaboard left to the Congo State north of Banana are some flourishing plantations, such as those of *Moanda* and *Vista*, the latter noted for its mangoes, of which it exports large quantities yearly. The inland districts of

GENERAL VIEW OF BOMA



1898

Catholic missions, hitherto directed by French priests, are now placed under the jurisdiction of the Meehlin diocesan authorities.

The chief local official, who takes the title of governor-general, is assisted by a consulting committee comprising an inspector, a secretary, a judge of appeal, and one or more directors named by the central Government. The flag of the new state is a gold star on a blue ground—the same as that of the old native Congo State—and the official language is French. The territory is divided into districts managed by special commissioners, who dispose of a force of about six thousand, commanded by one hundred and forty-five Belgian and other European officers, and for the most part recruited within the state. In virtue of treaties concluded with the natives, the Congo State already possesses vast landed estates, which, however, yield little revenue, so that the expenditure is still largely met by yearly advances from the King and the Belgian Government. The state revenue is derived mainly from customs, postage, transport, and the sale and letting of public lands, with a yearly deficit of over £100,000 (£102,000 in 1898). One of the chief prospective resources of the state are the elephants, estimated by Stanley at about two hundred thousand, each yielding on an average sixty pounds of ivory, and collectively representing a capital of £5,000,000. But these are secondary considerations compared with the great fact of half a continent and a whole family of mankind brought for the first time into direct contact with the outer world.



## STATISTICAL TABLES.

### THE AZORES.

Area, 1,005 square miles; population (1890), 255,000. Trade of Ponta-Delgada (1881), £1,000,000. Shipping, 162,000 tons. Shipping of Horta (1882), 112,000 tons.  
Chief towns: Ponta-Delgada, population 17,000; Ribeira-Grande, 11,800; Alagoin, 10,700; Angra, 11,000; Horta, 7,570.

### MADIRA.

Area, 505 square miles; population (1892), 137,000. Wine exported (1890), 125,000 gallons; value, £125,000. Trade of Funchal (1885), £420,000; shipping, 748,000 tons; population, 18,780.

### THE CANARIES.

Area, 2,808 square miles; population (1897), 291,000. Mean annual value of the exchange, £3,747,000.

Islands.	Population (1893).	Chief Town.	Population
Lancerote . . .	18,600 . . .	Arrecife . . .	2,700
Fuerteventura . . .	12,500 . . .	Puerto de Caldas . . .	520
Gran Canaria . . .	100,000 . . .	Las Palmas . . .	17,800
		Telde . . .	9,200
		Arucas . . .	8,000
Teneriffe . . .	111,000 . . .	Santa-Cruz . . .	16,600
		Laguna . . .	11,000
		Orotava . . .	8,200
Gomera . . .	12,000 . . .	San-Sebastian . . .	1,800
Palma . . .	11,000 . . .	Santa-Cruz . . .	6,600
		Les Ilanos . . .	6,000
Hierro . . .	5,900 . . .	Valverde . . .	5,400

### CAPE VERD ISLANDS.

Area, 1,650 square miles; population (1895), 110,000. Exports (1895), £73,000; imports (1895), £100,000. Shipping of St. Vincent (1895), 1,850,000 tons. Shipping of Praia (1895), 133,000 tons.

Islands.	Area.	Population.	Chief Towns
Santo-Antão . . .	285 square miles . . .	21,600 . . .	Ribeira-Grande (4,500)
St. Vincent . . .	100 . . .	5,900 . . .	Mindello (4,200)
S. Nicolau . . .	170 . . .	8,700 . . .	Ribeira-Brava (4,000)
Sal . . .	120 . . .	1,900 . . .	
Bõa-Vista . . .	175 . . .	3,600 . . .	Salrey
Maio . . .	100 . . .	1,600 . . .	
S. Thiago . . .	450 . . .	46,000 . . .	La Praia (4,000)
Fogo . . .	210 . . .	13,400 . . .	S. Philippe
Brava . . .	40 . . .	8,200 . . .	S. João-Batista

### SOUTH ATLANTIC ISLANDS.

Tristram, area 20,000 acres; pop. (1896), 64. St. Helena, area 47 square miles; pop. (1891), 4,115. imports (1896), £30,000; exports £5,000. Ascension, area 35 square miles; pop. (1891), 44. Annobon, area 7 square miles; pop. 3,000. S. Thomé, area 370 square miles; pop. (1895), 19,000. Prince's Island, area 60 square miles; pop. 2,500. Fernando Po, area 830 square miles; pop. 50,000.

### SENEGAL AND RIVIÈRES DU SUD

Area, 115,000 square miles; pop. (1898), 2,000,000. Basin of the Senegal, 176,000 square miles. Trade of Gorée and St. Louis (1898), £1,200,000. Shipping of Gorée and St. Louis (1896), 270,000 tons. Chief towns of French Senegal: St. Louis, 20,000; Dagana, 5,000; Rufisque, 4,500; Dakar, 2,000. Gorée, 1,960; Bakel, 1,250.

## FRENCH SUDAN, WITH IVORY COAST AND DAHOMEY.

Area, 395,000 ; pop. (est. 1898), 4,000,000 ; Timbuktu (35,000).

## GAMBIA.

Area of the basin, 20,000 square miles ; of British possessions, 2,700 square miles. Population (1894), 15,000. Imports (1896), 110,000 exports, £117,000 ; shipping, 231,000 tons.

## PORTUGUESE SENEGAMBIA.

Area, 17,000 square miles ; population, 140,000. Chief town : Bolama, population 3,700.

## SIERRA-LEONE.

Area, 15,000 square miles : population (1891), 180,000.

Area of British territory, 1,160 square miles : population, 60,500, of whom 41,000 Protestants, 130,000 Pagans, and 7,000 Mohammedans. Schools (1896), 85 ; attendance, 10,500. Exports (1896), £150,000.

## LIBERIA.

Area, 14,360 square miles ; population, 1,050,000. Exports (1896), £280,000 ; imports, £230,000 ; shipping, 290,000 tons. Chief towns : Monrovia, 5,000 ; Buchanan, 5,000 ; Harper, 3,000. Revenue (1894), £32,000 ; expenditure, £30,000 ; debt, £164,000.

## GOLD COAST, WITH PROTECTORATE.

Area, 46,600 square miles ; pop. (1898), 1,473,000. Chief towns : Accra (16,000), Elmina (10,000), Cape Coast Castle (11,600). Revenue (1896), £237,000 ; expenditure, £282,000 ; exports, £792,000, imports, £910,000 ; shipping, 1,103,000 tons.

## TSAD BASIN.

Wadai, area 178,000 square miles ; pop. 2,600,000 (?). Kanem, area 32,000 square miles ; pop. 150,000 (?). Bornu, area 56,000 square miles ; pop. 5,000,000 (?). Baghirmi, area 60,000 square miles ; pop. 1,000,000 (?).

Chief towns : Kuka (60,000), Ngornu (20,000), Gujba (20,000), Mashena (12,000), Khadeja (12,000), Gammuel (12,000), Sinder (10,000), Kawa (10,000), Doloo (30,000), Dikoa (15,000), Karnak-Logon (15,000), Massena (20,600).

## LAGOS, WITH YORUBA PROTECTORATE.

Area, 20,000 square miles ; pop. (1898), 3,000,000. Chief town : Lagos (32,000). Revenue (1897), £177,000 ; expenditure, £182,600 ; imports, £770,000 ; exports, £811,000.

## NIGER COAST PROTECTORATE.

Area and population unknown. Capital, Old Calabar, pop. 15,000. Revenue (1898), £145,000 ; imports, £640,000 ; exports, £750,000 ; British imports, £504,000 ; exports to Great Britain, £497,000.

## NIGER TERRITORY.

Area, including spheres of influence, 500,000 square miles ; pop. (1898), variously estimated from 20,000,000 to 35,000,000. Sokoto and Gando Protectorates : area 220,000 square miles ; pop. 15,000,000. Chief towns : Wurno (15,000), Yola (12,000), Kano (35,000), Bida (30,000), Kebbi (22,000), Yakoba (50,000), Illorin (50,000).

## TOGOLAND.

Area, 23,000 square miles ; pop. (1898), 2,500,000. Imports, £117,000 ; exports, £162,000. Revenue (1898), £27,000 ; expenditure, £29,000.

## CAMEROONS.

Area, 191,000 square miles ; pop. (1898), 4,500,000. Imports, £288,000 ; exports, £201,000. Revenue and expenditure (1898), £70,000, including imperial contribution of £418,000.

## FRENCH CONGO AND GABOON.

Area, 497,000 square miles ; pop. (est. 1898), 5,000,000. Revenue (1898), £185,000 ; expenditure, £315,000.

## CONGO INDEPENDENT STATE.

Area, 900,000 square miles ; pop. (est. 1898), 30,000,000. Revenue (1898), £600,000 ; expenditure, £700,000 ; imports (1897), £540,000 ; exports, £600,000 ; shipping (1897), 275,000 tons ; post-offices, 154 ; letters forwarded (1897), 280,000.





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